

Palestinian Polytechnic University
 College of Engineering and Technology
 Department of Civil Engineering

THE ROAD BETWEEN
 HALHUL & AIN HASKA
 CONTURE PLAN

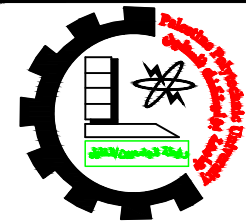
Legend

Slope Arrows Table			
Number	Minimum Slope	Maximum Slope	Color
1	0.00%	12.32%	Red
2	12.32%	18.72%	Orange
3	18.72%	24.60%	Yellow
4	24.60%	30.36%	Light Green
5	30.36%	38.93%	Green
6	38.93%	44.65%	Dark Green
7	44.65%	49.89%	Blue
8	49.89%	111.93%	Purple

DRAWING TITLE :
 The Plan of the Haska Road
 Supervisor : Eng, Faydi Shabaneh

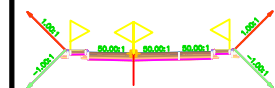
Desined by :
 Atheer Al-Ajarmeh
 Baraa Younis
 Rasha Shweiki

SCALE	NO.OP DRAW	DATE
1/2500	A2	21/1/2024



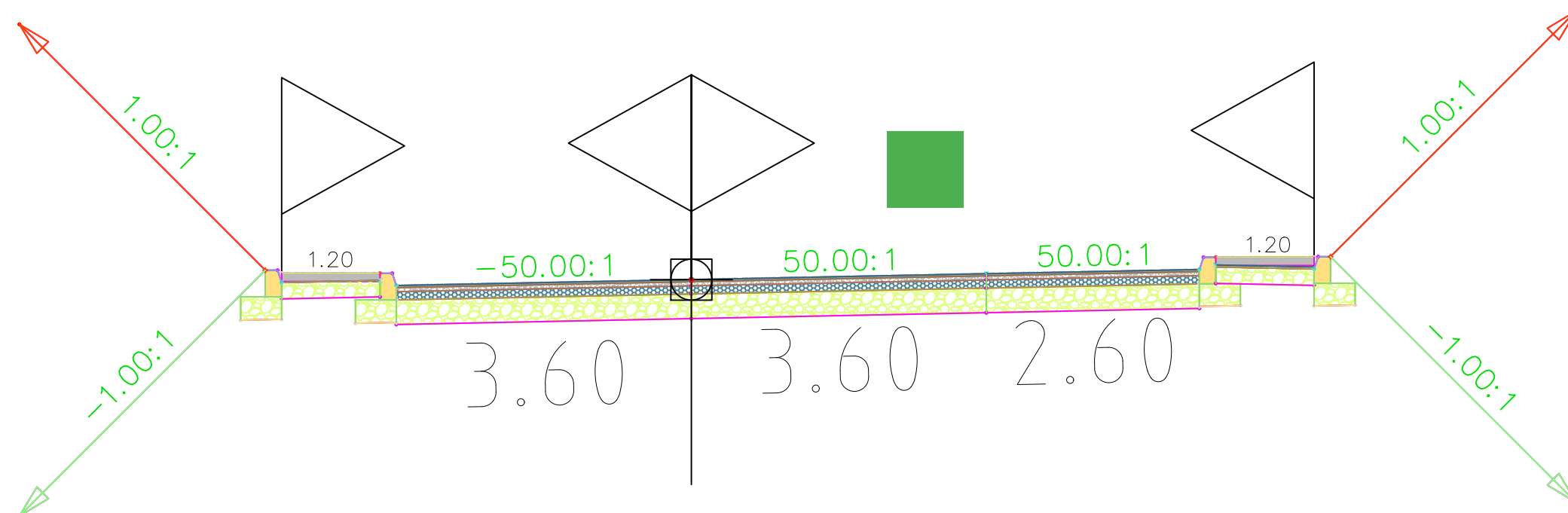
Palestinian Polytechnic University
College of Engineering and Technology
Department of Civil Engineering

THE ROAD BETWEEN
HALHUL & AIN HASKA



Legend

- Sub base
- Base course
- Pavement 1
- Pavement 2



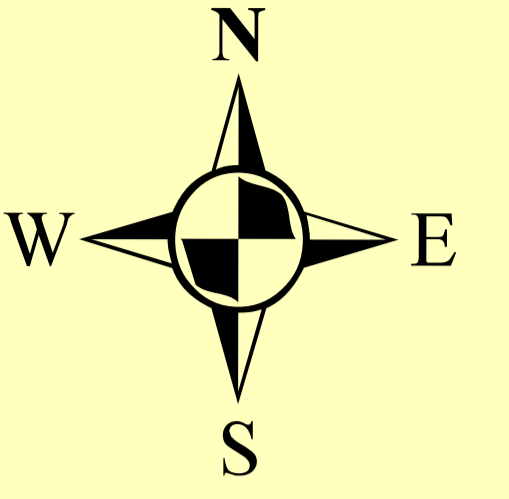
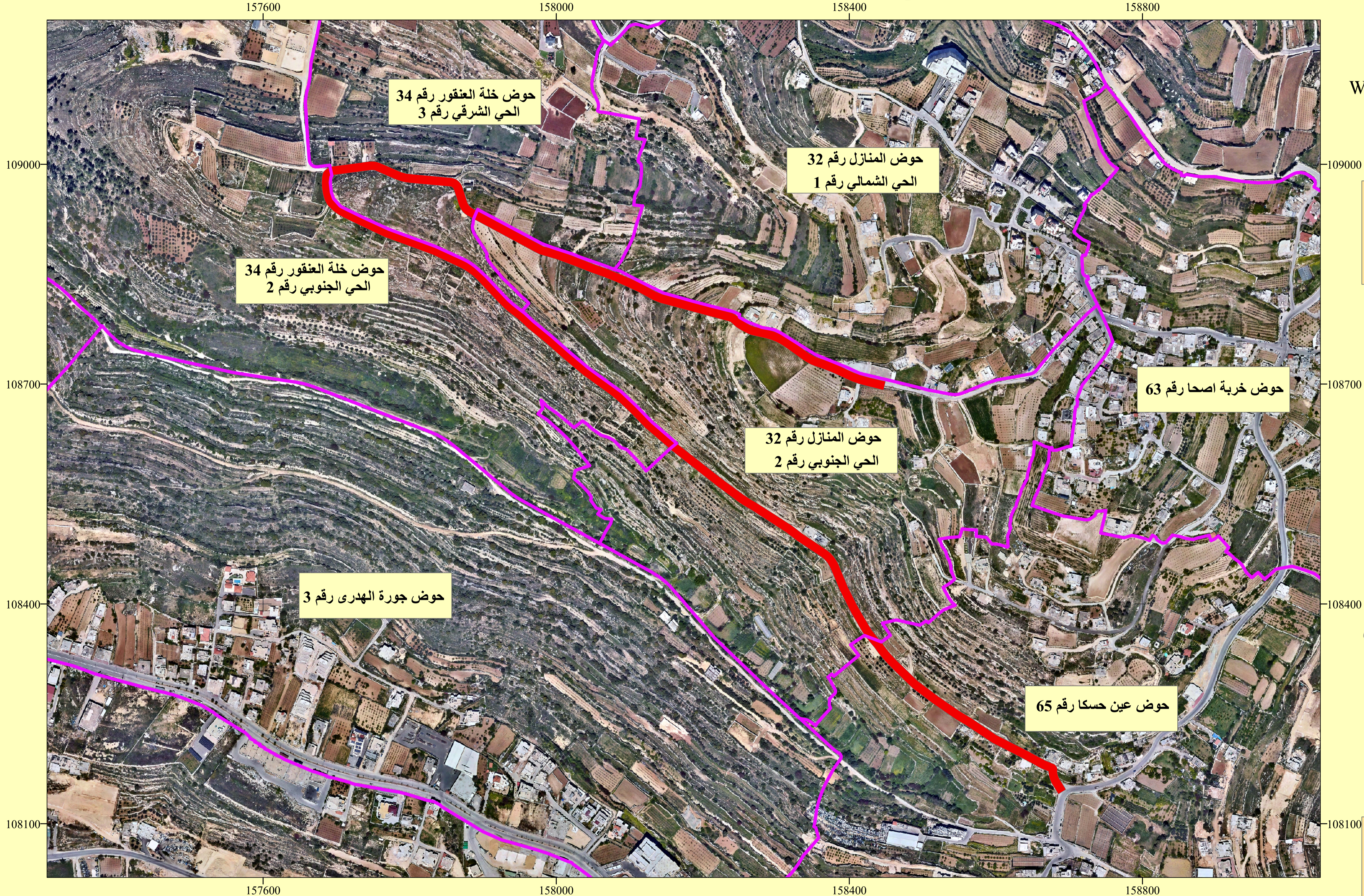
DRAWING TITLE :
Cross Section

Supervisor : Eng . faydi shabaneh

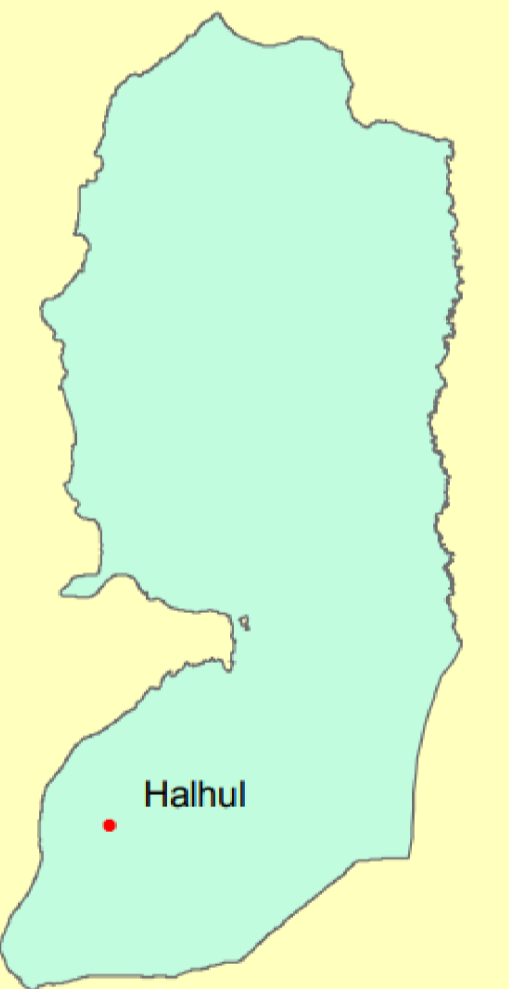
Desined by :
ATHEER AL-AJARMEH
BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

SCALE	NO.OF DRAW	DATE
V : 1/20 H : 1/100	AS	21/01/2024

الطريق الواصل بين مدينة حلحول و عين حسكا



مفتاح الخارطة
الشارع
الأحواض

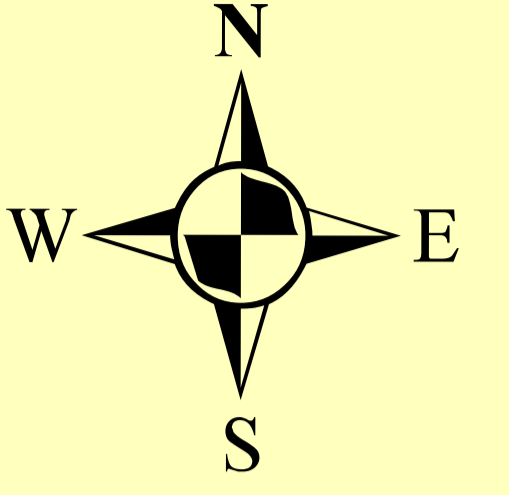
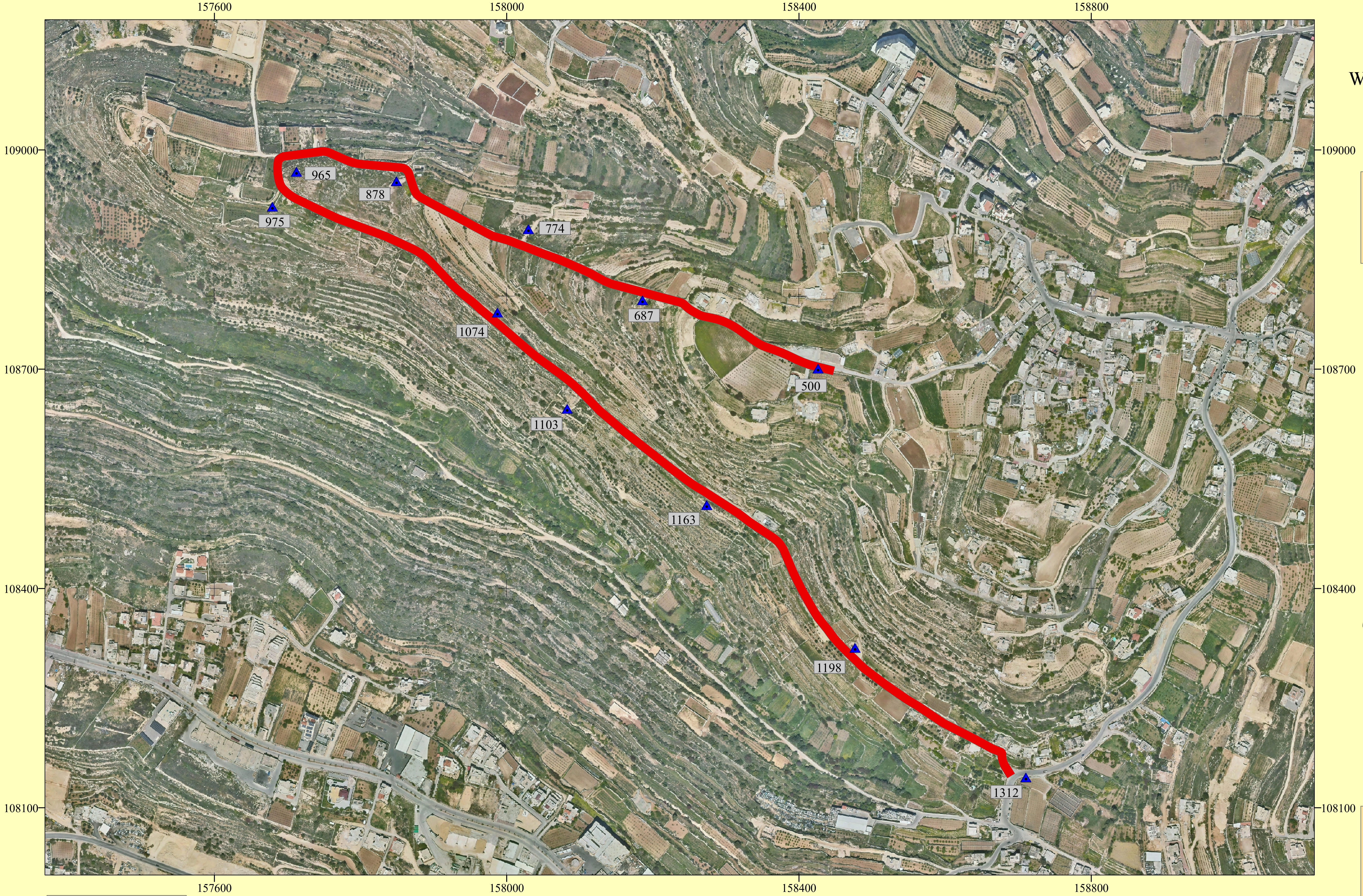


فريق العمل :-
أثير العجاردة
براء يونس
رشا شويكي
المشرف :-
م. فيضي شبانة

Coordinate System: Palestine 1923 Palestine Grid
Projection: Cassini
Datum: Palestine 1923
Data Sources: Halhul Municipality

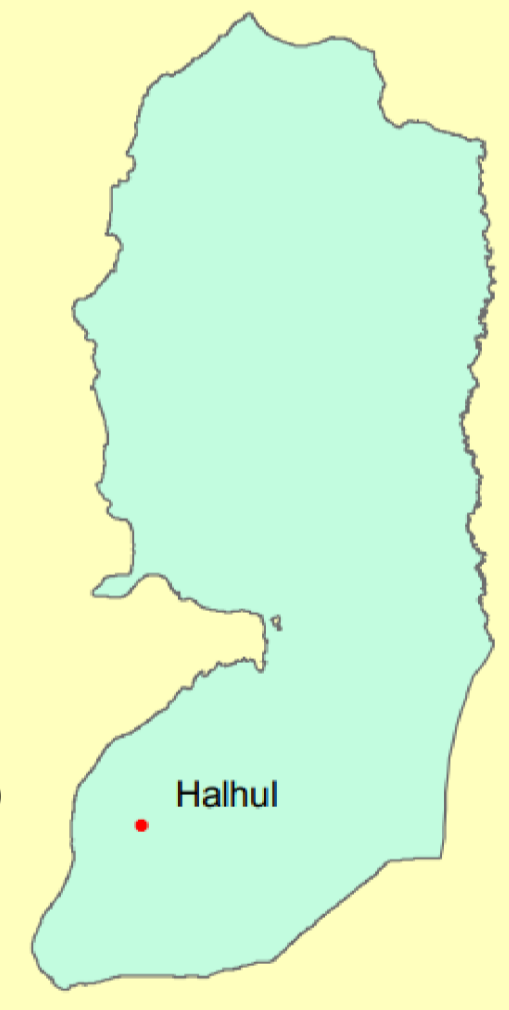
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الطريق الواصل بين مدينة حلحول و عين حسكا

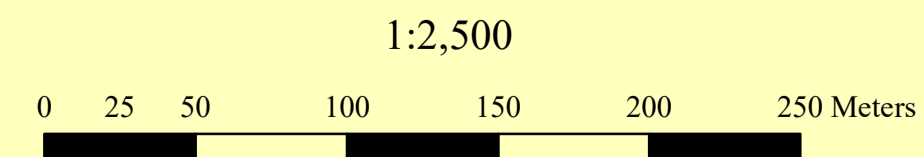


مفتاح الخارطة

- Road
- Control Point

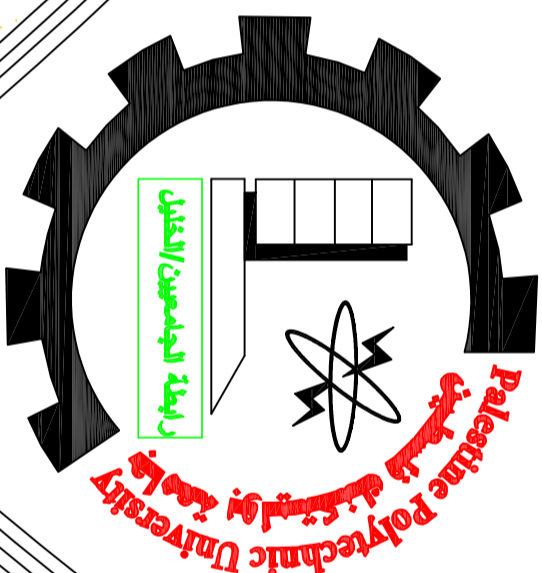


Coordinate System: Palestine 1923 Palestine Grid
Projection: Cassini
Datum: Palestine 1923
Data Sources: Halhul Municipality



فريق العمل :-
أثير العجاردة
براء يونس
رشا شويكي
المشرف :-
م. فيضي شبانة

جامعة بوليتيكنك فلسطين كلية الهندسة و التكنولوجيا



مشروع التخرج

فريق العمل:

أثير محمود العجارمة

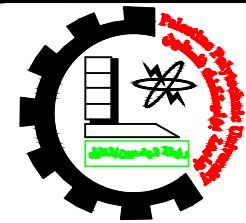
براء إيهاب يونس

رثا درويش شويكي

المشرف: م. فيضي شيبانة

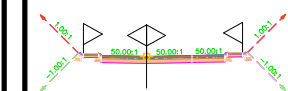
تصميم الطريق الواصل
بين مدينة حلحول
و عين حسكا

تاريخ: 21/01/2024



Palestinian Polytechnic University
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Department of Civil Engineering

THE ROAD BETWEEN
HALHUL & AIN HASKA



Legend

- Ground Surface
- Sub base
- Base course
- Pavement 1
- Pavement 2

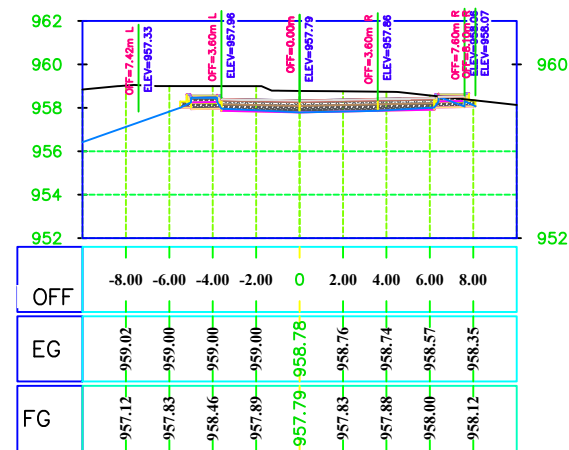
DRAWING TITLE :
Cross Section

Supervisor : Eng . faydi shabaneh

Desined by :
ATHEER AL-AJARMEH
BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

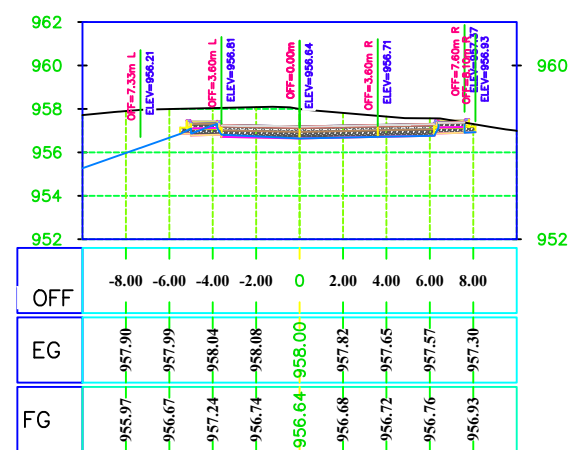
SCALE	NO.OP	DATE
V : 1/20 H : 1/100	DRAW AS	21/01/2024

0+160.00



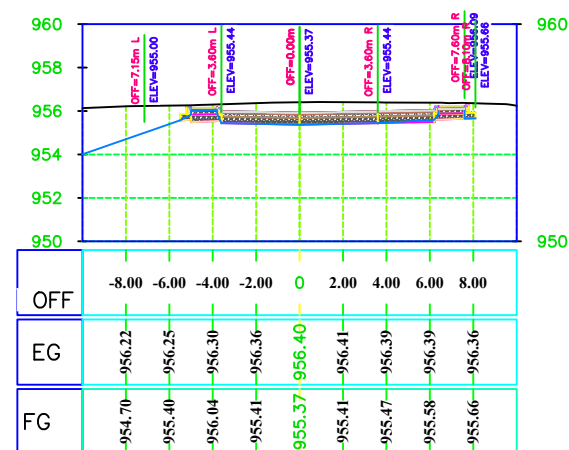
Material(s) at Station 1+60.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	6.48	45.23
Base	1.67	33.32	232.76
SubBase	4.47	89.30	623.71
Pavement 2	0.49	9.80	68.46
CURB	0.25	4.90	34.23
SIDE WALK	0.24	4.80	33.50

0+170.00

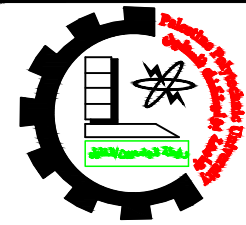


Material(s) at Station 1+70.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.24	48.47
Base	1.67	16.66	249.42
SubBase	4.47	44.65	668.36
Pavement 2	0.49	4.90	73.36
CURB	0.25	2.45	36.68
SIDE WALK	0.24	2.40	35.90

0+180.00

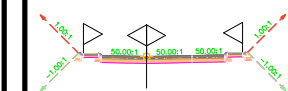


Material(s) at Station 1+80.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.25	51.72
Base	1.67	16.71	266.13
SubBase	4.47	44.77	713.13
Pavement 2	0.49	4.91	78.27
CURB	0.25	2.46	39.14
SIDE WALK	0.24	2.41	38.31



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- Base course
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- Pavement 2

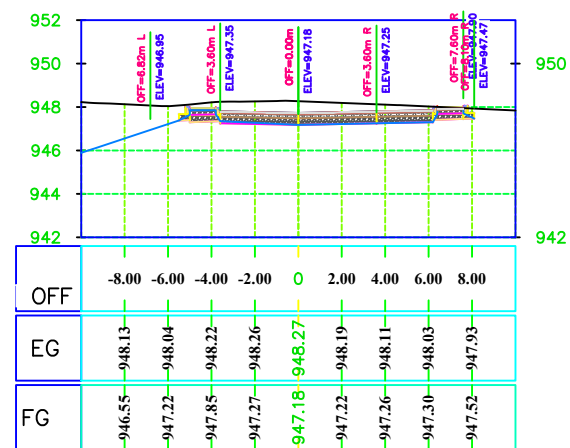
DRAWING TITLE :
Cross Section

Supervisor : Eng . faydi shabaneh

Desined by :
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BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

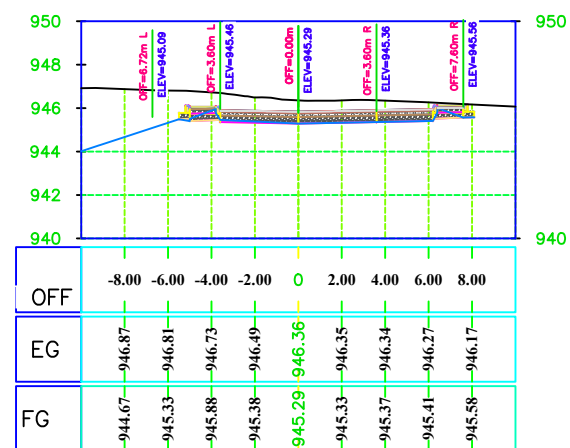
SCALE	NO.OP	DATE
V : 1/10 H : 1/100	DRAW	21/01/2024
	A3	

0+230.00



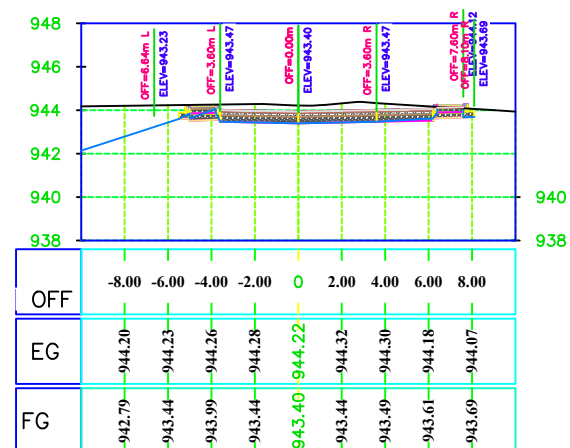
Material(s) at Station 2+30.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.25	67.95
Base	1.67	16.71	349.53
SubBase	4.47	44.77	936.63
Pavement 2	0.49	4.91	102.80
CURB	0.25	2.46	51.40
SIDE WALK	0.24	2.40	50.31

0+240.00



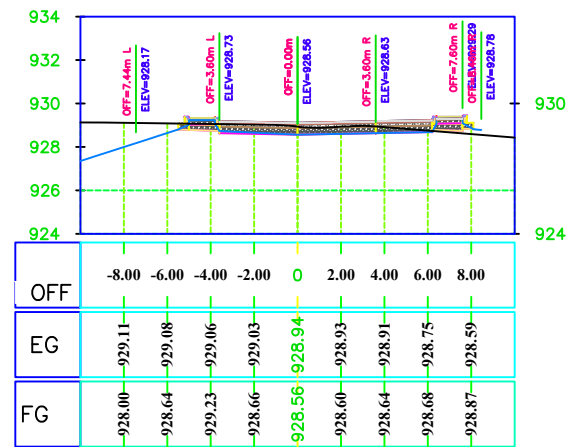
Material(s) at Station 2+40.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.25	71.20
Base	1.67	16.71	366.23
SubBase	4.47	44.77	981.40
Pavement 2	0.49	4.91	107.72
CURB	0.25	2.46	53.86
SIDE WALK	0.24	2.40	52.71

0+250.00



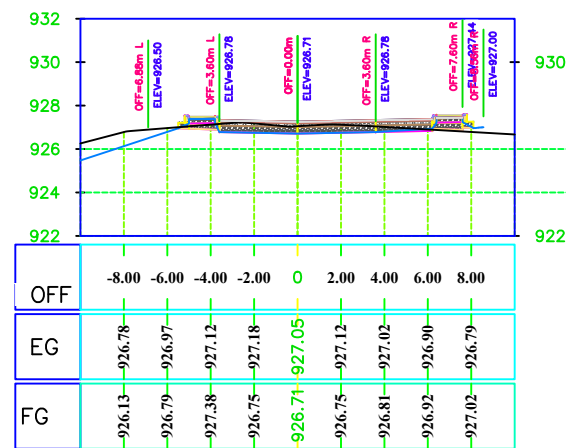
Material(s) at Station 2+50.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.25	74.46
Base	1.67	16.71	382.94
SubBase	4.47	44.77	1026.17
Pavement 2	0.49	4.91	112.63
CURB	0.25	2.46	56.32
SIDE WALK	0.24	2.40	55.12

0+330.00



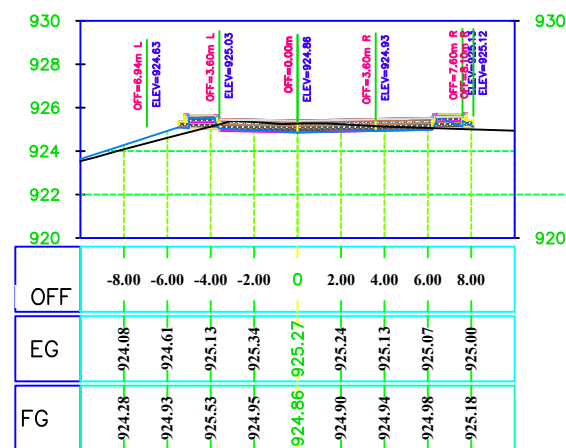
Material(s) at Station 3+30.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.24	100.43
Base	1.67	16.66	516.41
SubBase	4.47	44.65	1383.84
Pavement 2	0.49	4.90	151.89
CURB	0.25	2.45	75.95
SIDE WALK	0.24	2.40	74.33

0+340.00

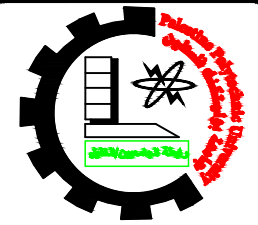


Material(s) at Station 3+40.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.19	103.61
Base	1.67	16.47	532.88
SubBase	4.47	44.09	1427.92
Pavement 2	0.49	4.84	156.73
CURB	0.25	2.42	78.37
SIDE WALK	0.24	2.37	76.70

0+350.00

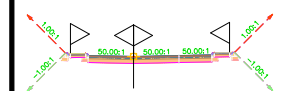


Material(s) at Station 3+50.00			
Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.23	106.84
Base	1.67	16.61	549.48
SubBase	4.47	44.50	1472.42
Pavement 2	0.49	4.88	161.61
CURB	0.25	2.44	80.81
SIDE WALK	0.24	2.39	79.09



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THE ROAD BETWEEN
HALHUL & AIN HASKA



Legend

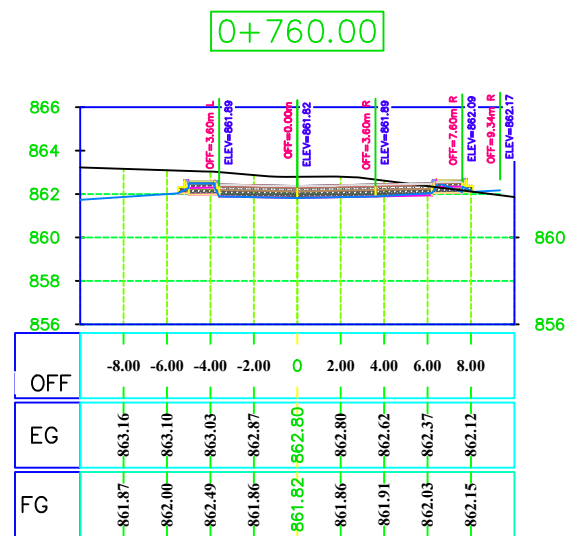
- Ground Surface
- Sub base
- Base course
- Pavement 1
- Pavement 2

DRAWING TITLE :
Cross Section

Supervisor : Eng . faydi shabaneh

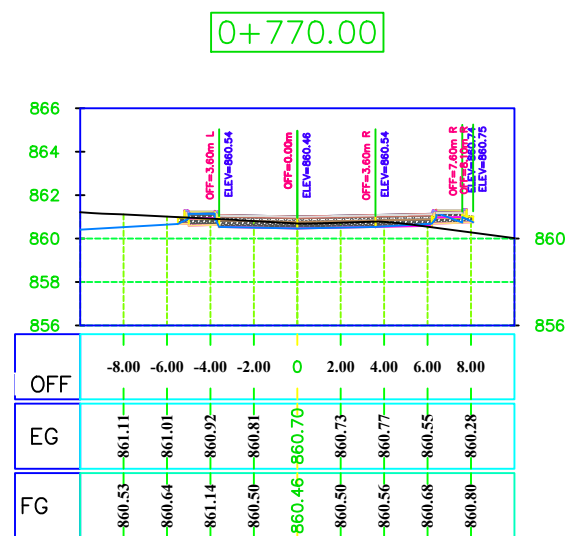
Desined by :
ATHEER AL-AJARMEH
BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

SCALE	NO.OP	DATE
V : 1/20 H : 1/100	DRAW	21/01/2024
	A3	



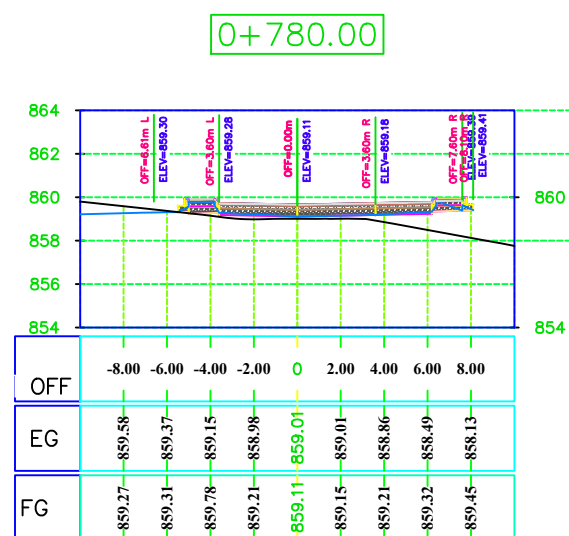
Material(s) at Station 7+60.00

Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.24	239.69
Base	1.67	16.66	1232.57
SubBase	4.47	44.65	3302.48
Pavement 2	0.49	4.90	362.52
CURB	0.25	2.45	181.27
SIDE WALK	0.24	2.40	177.41



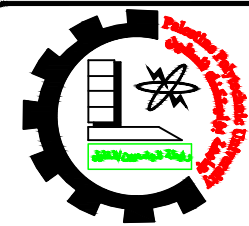
Material(s) at Station 7+70.00

Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.24	242.93
Base	1.67	16.66	1249.23
SubBase	4.47	44.65	3347.13
Pavement 2	0.49	4.90	367.42
CURB	0.25	2.45	183.72
SIDE WALK	0.24	2.40	179.81



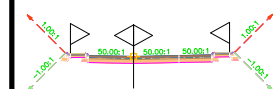
Material(s) at Station 7+80.00

Material Name	Area	Volume	Cumulative Volume
Pavement	0.32	3.36	246.29
Base	1.67	17.10	1266.33
SubBase	4.47	45.75	3392.87
Pavement 2	0.49	5.03	372.45
CURB	0.25	2.52	186.23
SIDE WALK	0.24	2.46	182.27



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THE ROAD BETWEEN HALHUL & AIN HASKA



Legend

- Ground Surface
- Sub base
- Base course
- Pavement 1
- Pavement 2

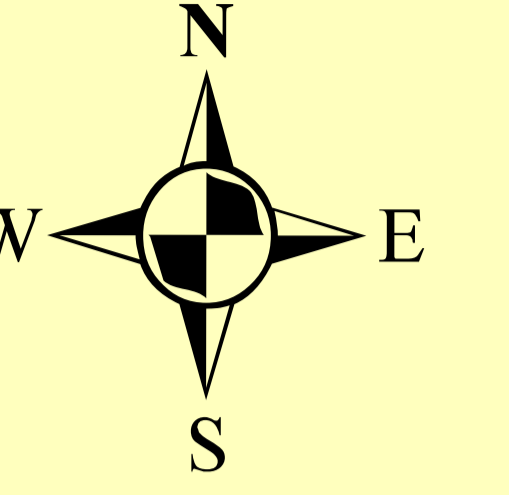
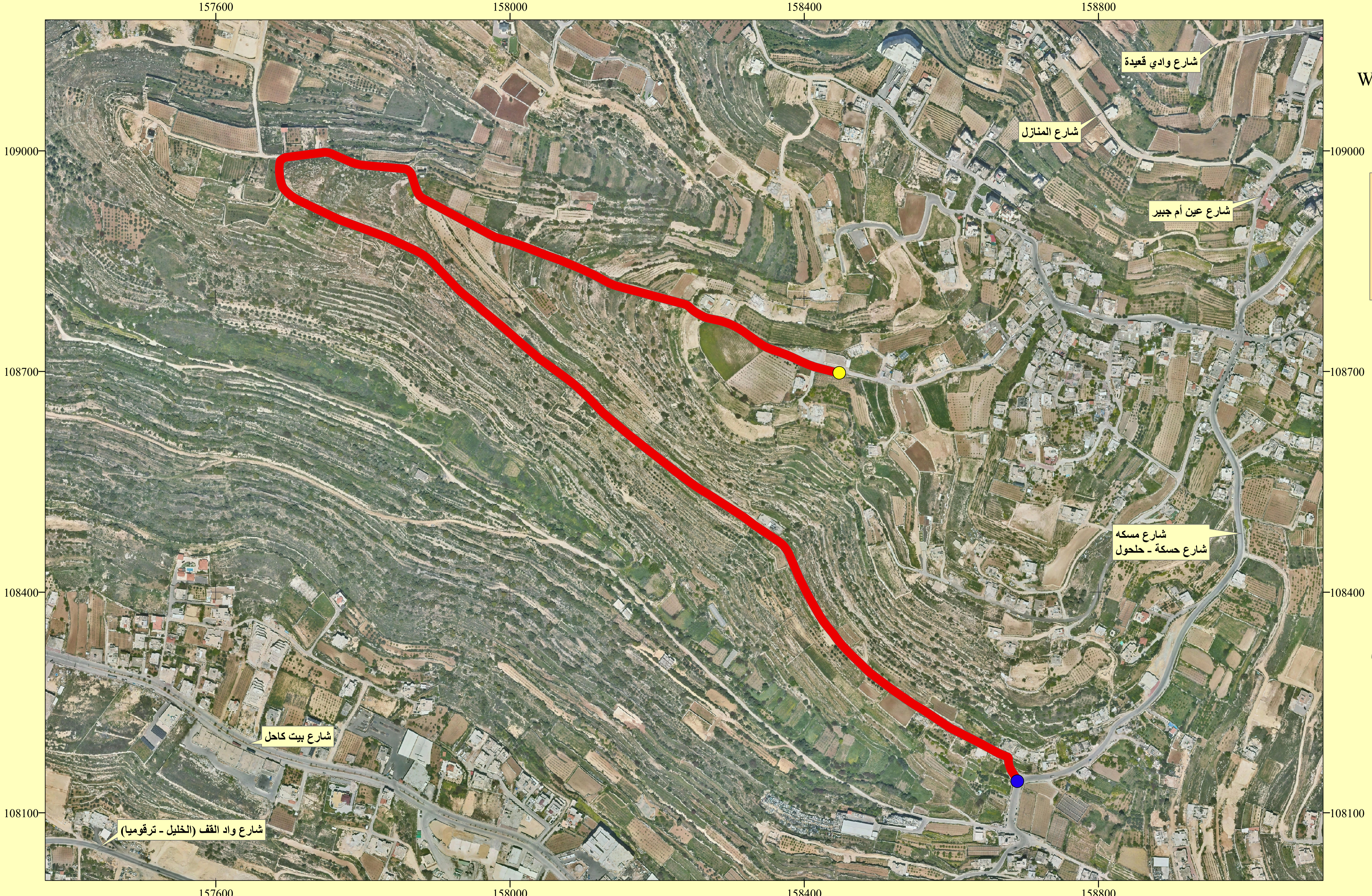
DRAWING TITLE :
Cross Section

Supervisor : *Eng . faydi shabaneh*

Desined by :
ATHEER AL-AJARMEH
BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

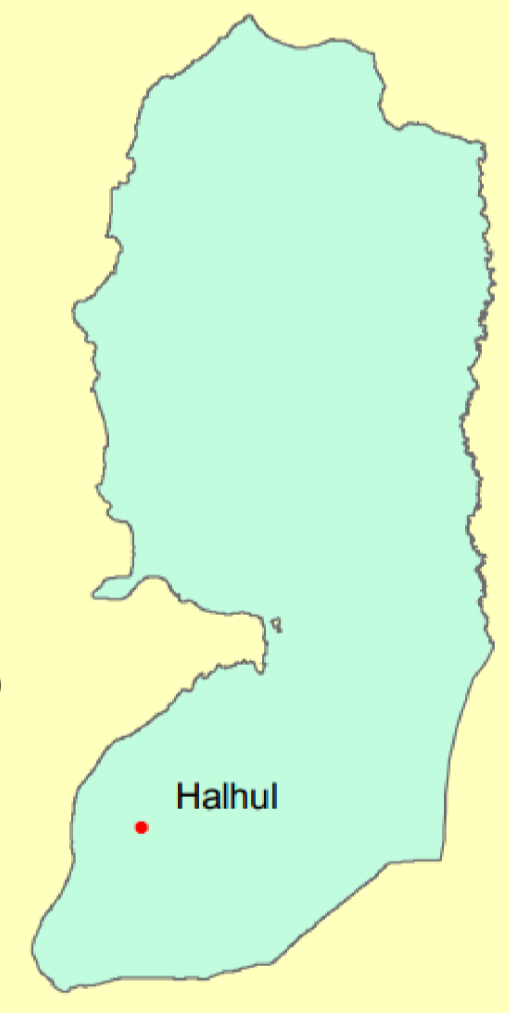
SCALE	NO.OP	DATE
V : 1/20 H : 1/100	DRAW AS	21/01/2024

الطريق الواصل بين مدينة حلحول و عين حسكا



مفتاح الخارطة

- الشارع
- بداية الشارع
- نهاية الشارع

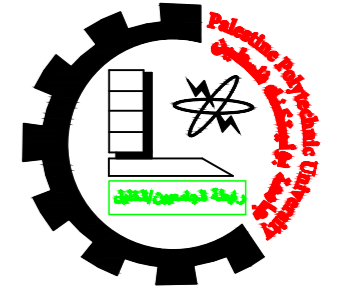
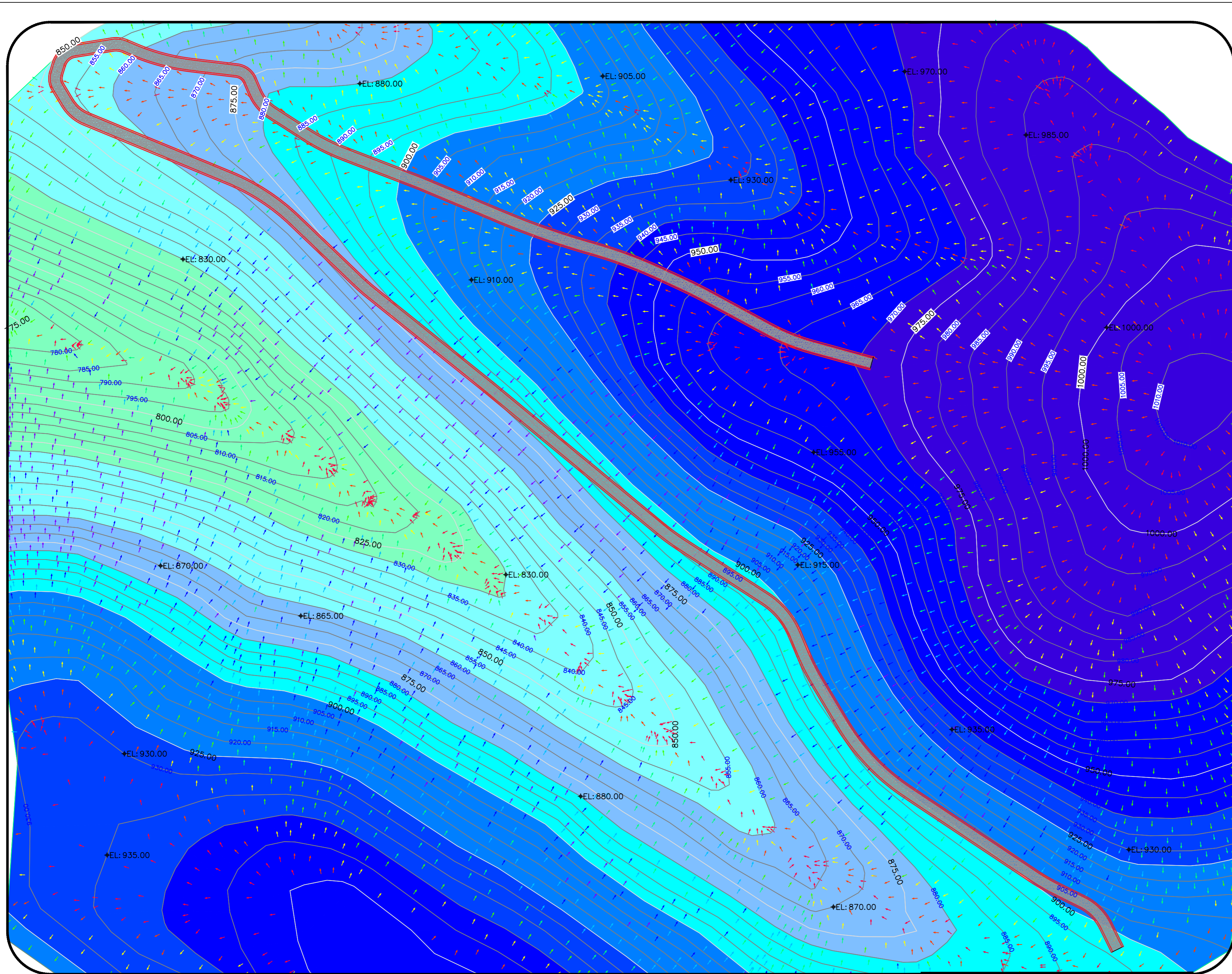


فريق العمل :-
أثير العجامة
براء يونس
رشا شويكي

المشرف :-
م. فيضي شبانة

Coordinate System: Palestine 1923 Palestine Grid
Projection: Cassini
Datum: Palestine 1923
Data Sources: Halhul Municipality

1:2,500
0 25 50 100 150 200 250 Meters



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THE ROAD BETWEEN
HALHUL & AIN HASKA
CONTURE PLAN

Legend

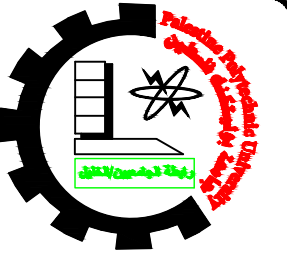
Slope Arrows Table			
Number	Minimum Slope	Maximum Slope	Color
1	0.00%	12.32%	Red
2	12.32%	18.72%	Yellow
3	18.72%	24.60%	Orange
4	24.60%	30.36%	Light Green
5	30.36%	38.93%	Green
6	38.93%	44.65%	Light Blue
7	44.65%	49.89%	Blue
8	49.89%	111.93%	Purple

Elevations Table				
Number	Minimum Elevation	Maximum Elevation	Area	Color
1	775.00	830.00	81594.31	Light Green
2	830.00	860.00	118289.12	Yellow
3	860.00	880.00	119627.81	Orange
4	880.00	900.00	120708.90	Light Green
5	900.00	925.00	141747.15	Green
6	925.00	940.00	118627.29	Light Blue
7	940.00	970.00	168871.83	Blue
8	970.00	1010.00	173591.72	Purple

DRAWING TITLE :
The Plan of the Haska Road
Supervisor : Eng, Faydi Shabaneh

Desined by :
Atheer Al-Ajarmeh
Baraa Younis
Rasha Shweiki

SCALE	NO.OP DRAW	DATE
1/2500	A2	21/1/2024



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THE ROAD BETWEEN HALHUL & AIN HASKA

GENERAL NOTES:

1. ALL STATIONS, COORDINATES AND LEVELS ARE IN METERS.
2. COORDINATES AND ELEVATIONS REFER TO THE PALESTINIAN GRID SYSTEM.
3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

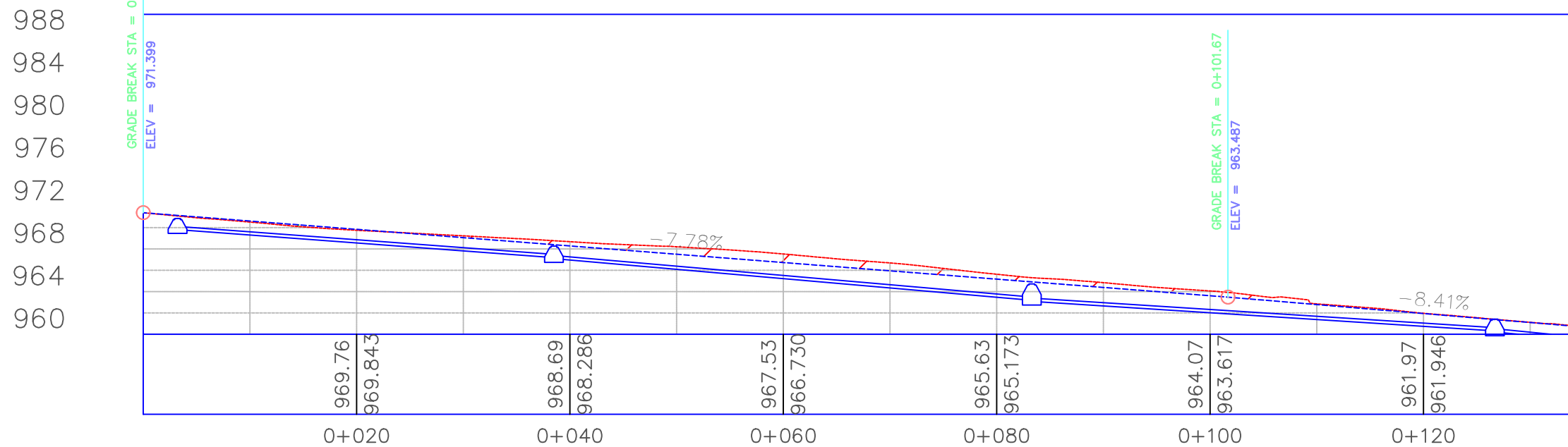
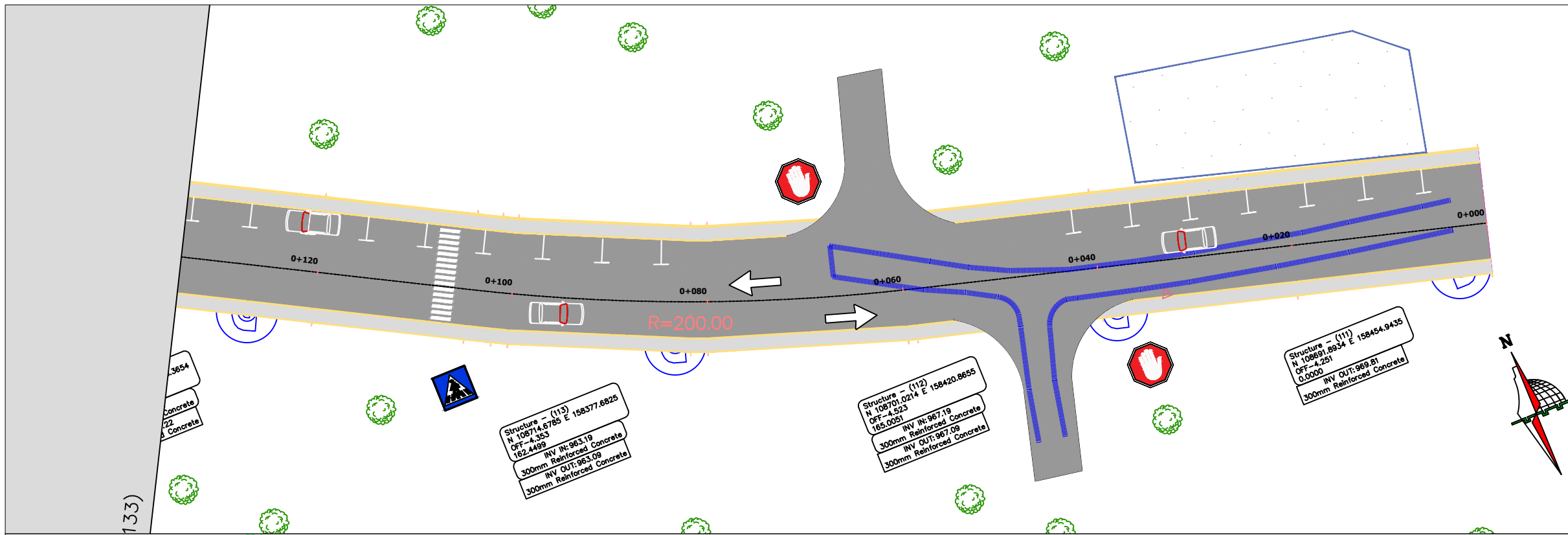
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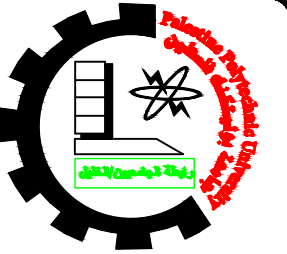
Desined by :

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BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

SCALE	NO.OF	DATE
V : 1/500 H : 1/500	A3	21/01/2024



Vertical Geometry	101.67	38.46			
Horizontal Geometry	L=59.05	L=64.49			
Cut	-0.40	-0.80	-0.46	-0.45	-0.02
Fill	0.09				



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- Ground Surface
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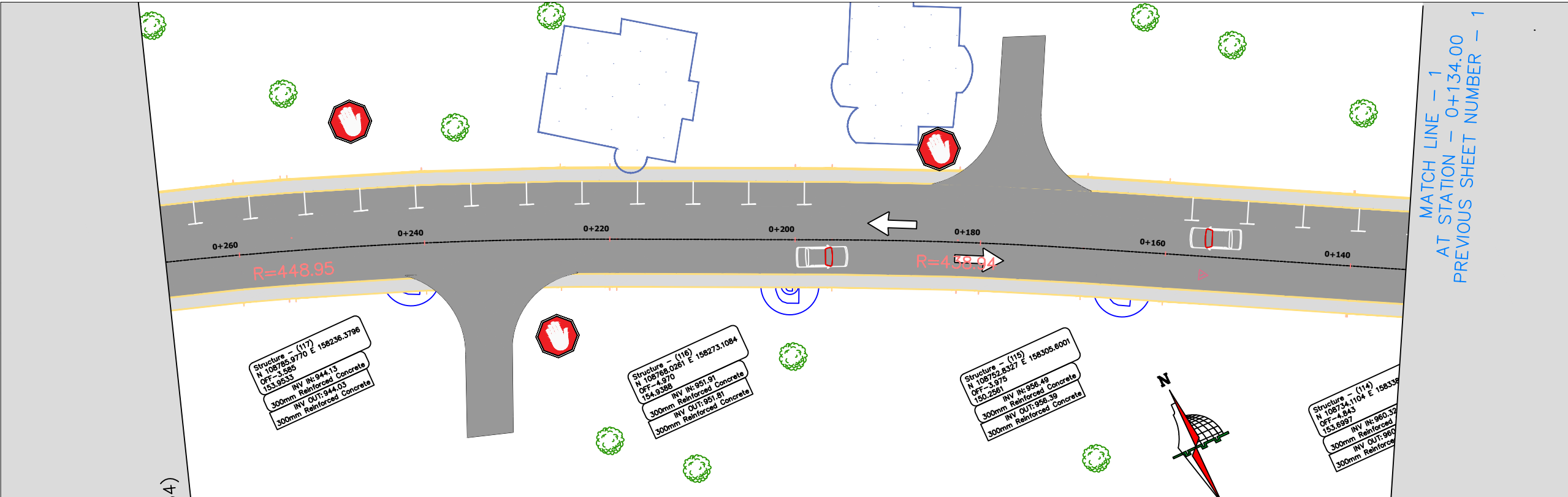
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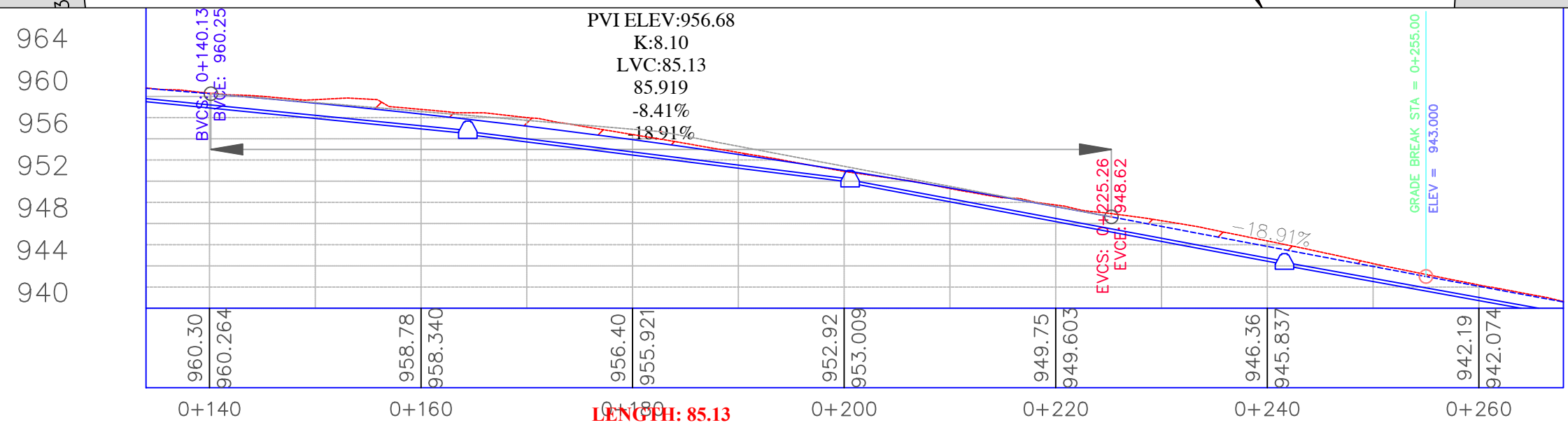
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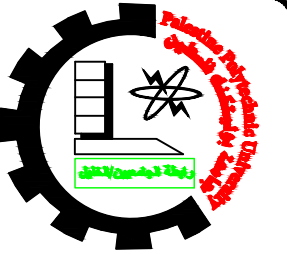
SCALE	NO.OP	DATE
V : 1/500 H : 1/500	A3	21/01/2024
		2



MATCH LINE - 1
AT STATION - 0+134.00
PREVIOUS SHEET NUMBER - 1



Vertical Geometry	38.46	LENGTH: 85.13 PVI STATION: 0+182.70 PVI ELEVATION: 956.68 H.P STATION: 0+140.13 H.P ELEVATION: 960.25			29.74	171.99
Horizontal Geometry	L=64.49	R=438.102 Curve 1: Radius=438.941, Length=27.145, Delta=176.4567	L=23.20	Curve 1: Radius=448.955, Length=70.106, Delta=171.0531		
Cut	0.04	0.44	0.48	0.15	0.52	0.12
Fill			0.09			



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THE ROAD BETWEEN HALHUL & AIN HASKA

GENERAL NOTES:

1. ALL STATIONS, COORDINATES AND LEVELS ARE IN METERS.
2. COORDINATES AND ELEVATIONS REFER TO THE PALESTINIAN GRID SYSTEM.
3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

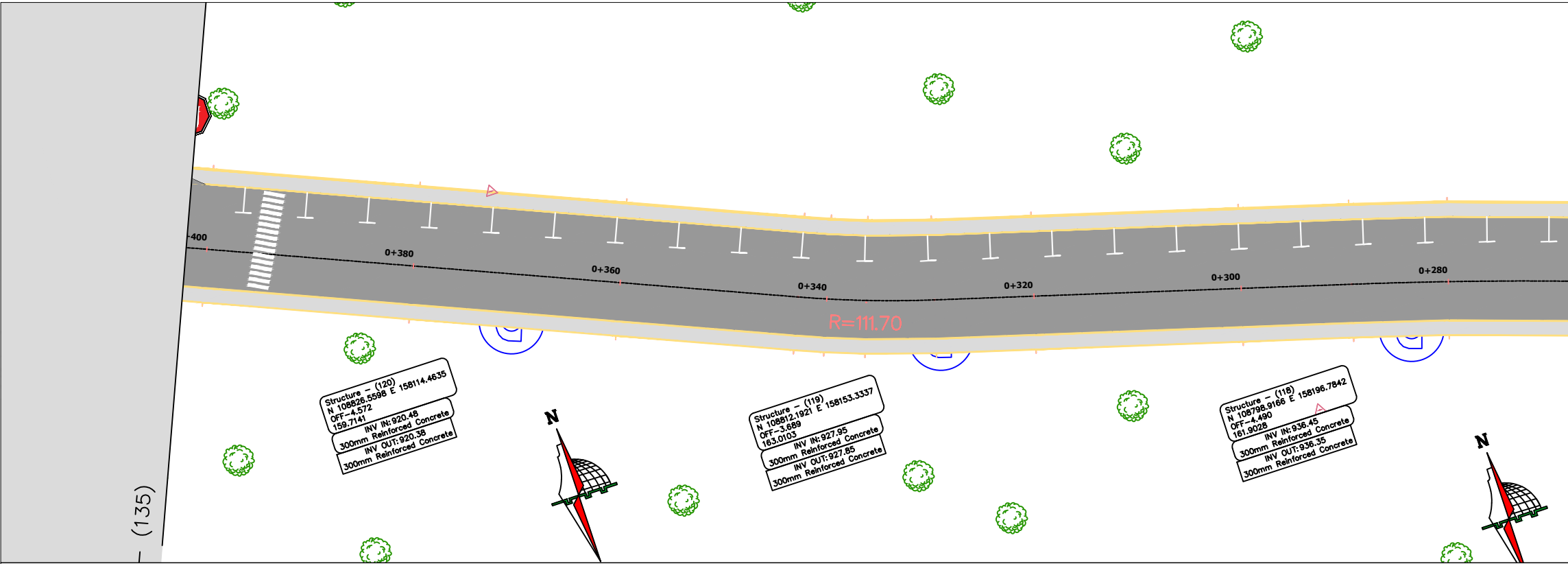
THE ROAD BETWEEN HALHUL & AIN HASKA

Supervisor : Eng . faydi shabaneh

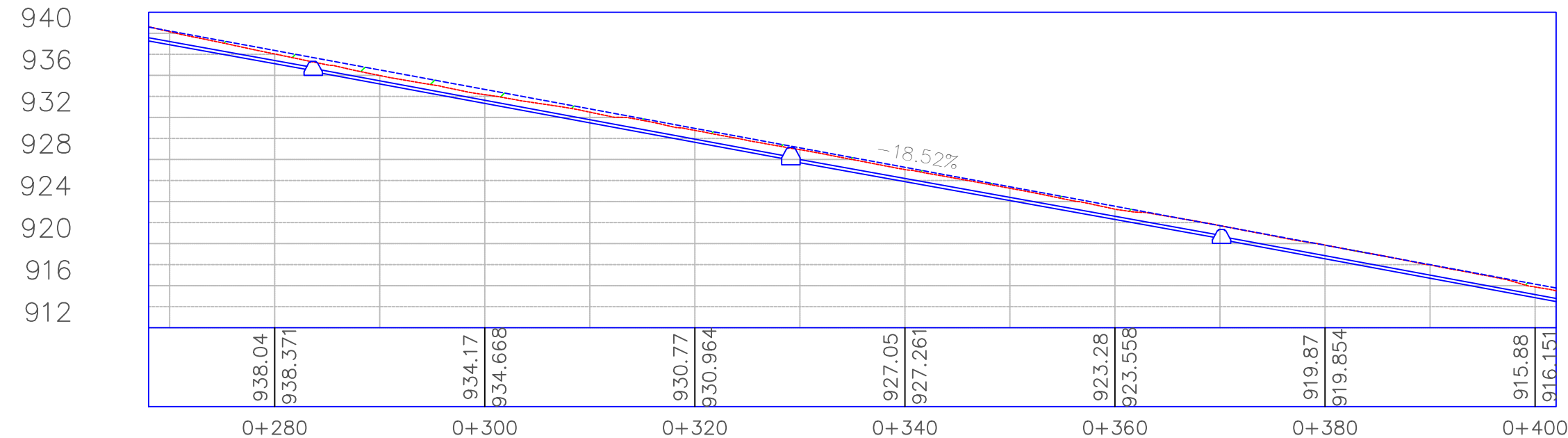
Desined by :

ATHEER AL-AJARMEH
BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

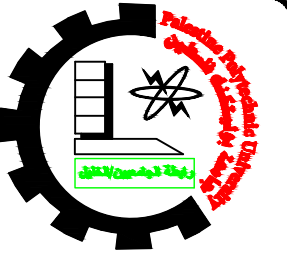
SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 3



MATCH LINE - 2
AT STATION - 0+268.00
PREVIOUS SHEET NUMBER -



Vertical Geometry	171.99					
Horizontal Geometry	L=70.11 R=448.95	L=40.28		Curve 1: Radius=111.697, Length=13.172, Delta=173.2436	L=119.30	
Cut	0.01					
Fill	0.33	0.50	0.19	0.21	0.28	0.27



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3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs

-
-
-
-
-
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-

DRAWING TITLE :

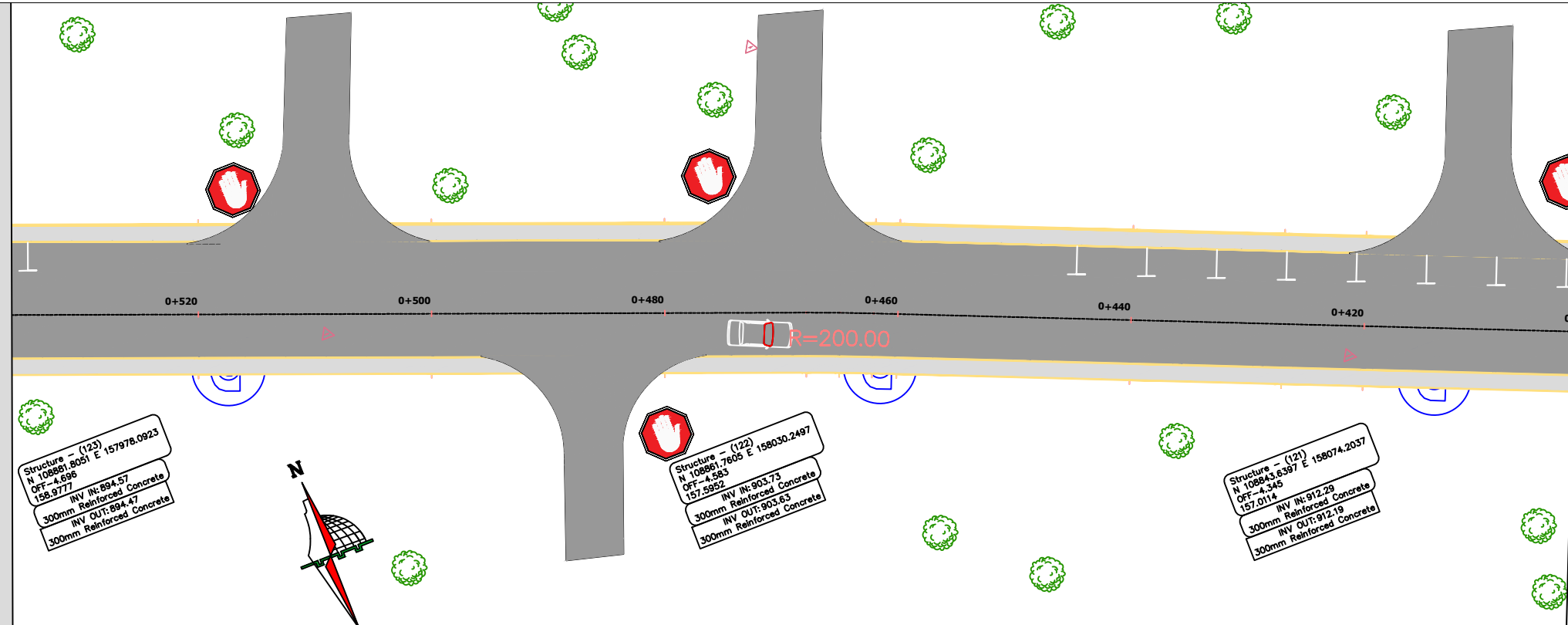
THE ROAD BETWEEN HALHUL & AIN HASKA

Supervisor : Eng . faydi shabaneh

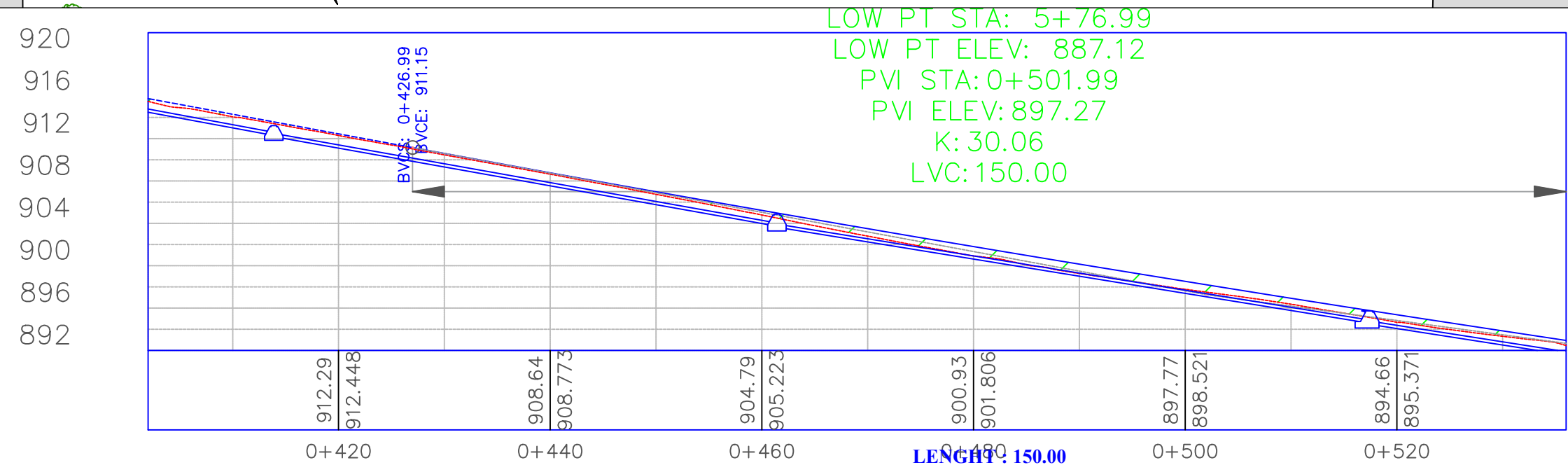
Desined by :

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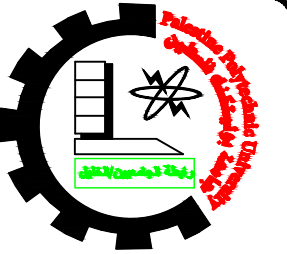
SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 4



MATCH LINE - 3
AT STATION - 0+402.00
PREVIOUS SHEET NUMBER - 3



Vertical Geometry	<p>Vertical curve length: 150.00 PVI STATION : 0+501.99 PVI ELEVAYION : 897.27 L.P STATION : 0+576.99 L.P ELEVATION: 887.12</p>					
Horizontal Geometry	<p>Curve 1: Radius=200.000, Length=5.783, Delta=178.3432</p>					
Cut	[Red line indicating cut areas]					
Fill	0.15	0.13	0.43	0.88	0.75	0.71



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2. COORDINATES AND ELEVATIONS REFER TO THE PALESTINIAN GRID SYSTEM.
3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

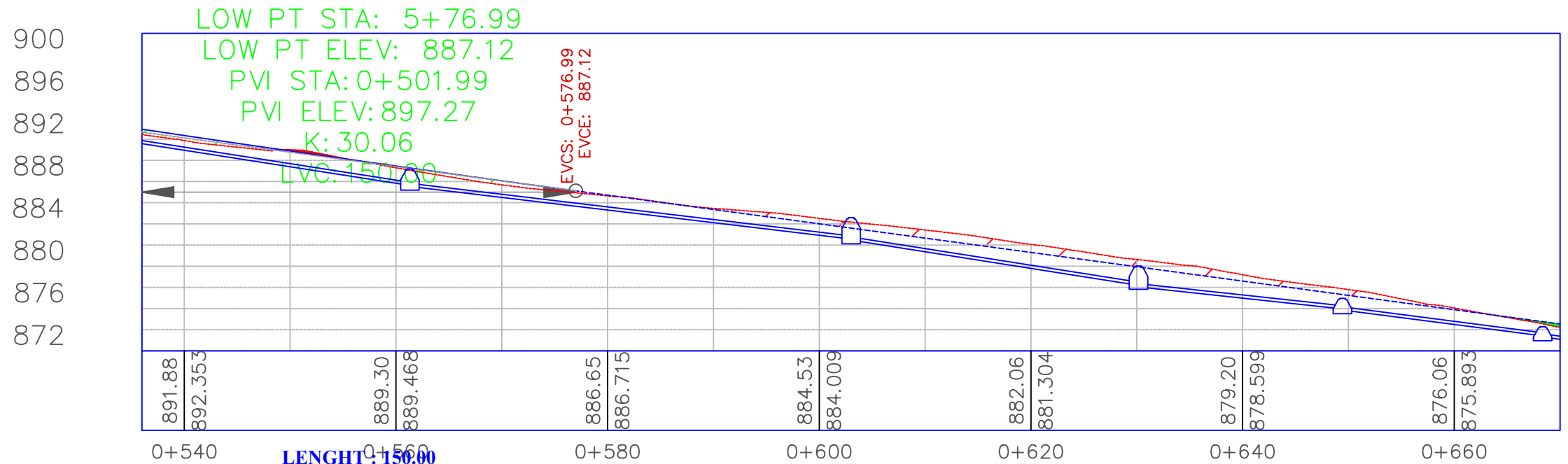
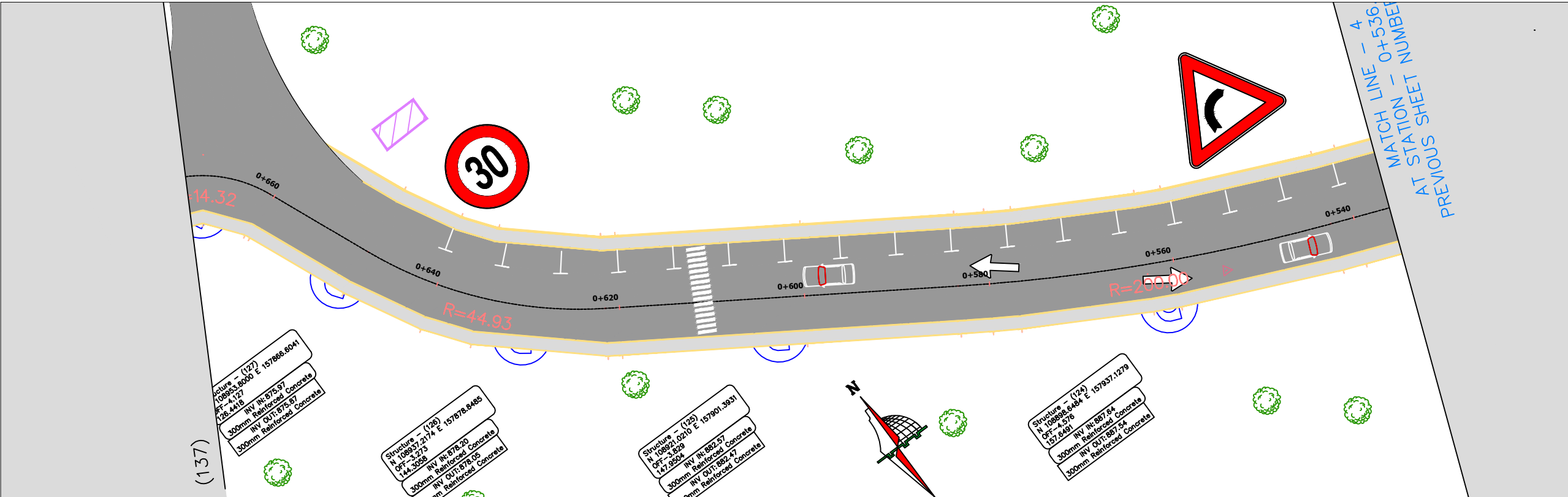
Signs

- Warning sign: curve right
- Prohibitory sign: no left turn
- Circular speed limit sign: 30
- Circular speed limit sign: 40
- Blue sign: roundabout priority
- Blue sign: roundabout yield

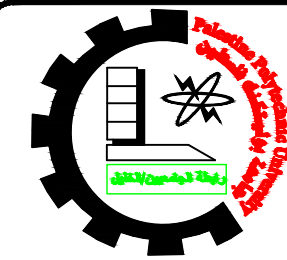
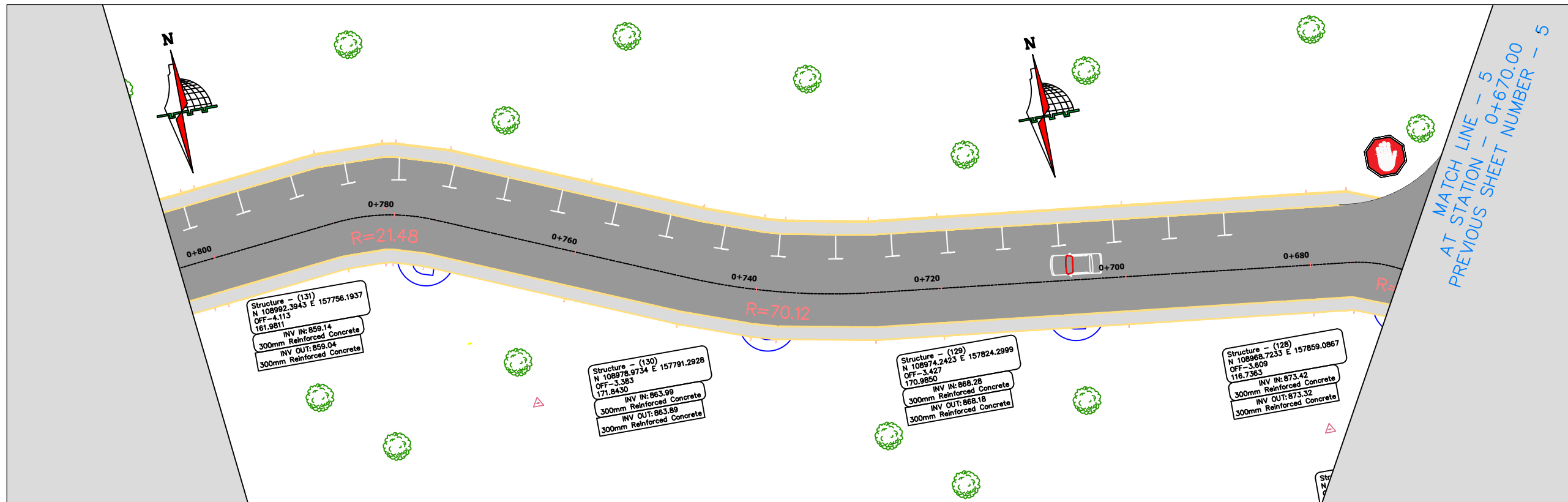
DRAWING TITLE :
THE ROAD BETWEEN HALHUL & AIN HASKA
Supervisor : Eng . faydi shabaneh

Desined by :
ATHEER AL-AJARMEH
BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

SCALE	NO.OF	DATE
V : 1/500 H : 1/600	DRAW A3	21/01/2024 5



Vertical Geometry	PVI STATION : 0+501.99 PVI ELEVATION : 897.27 L.P STATION : 0+576.99 L.P ELEVATION : 887.12 LVC: 150.00 EVCS: 0+576.99 EVCE: 887.12			
Horizontal Geometry	L=74.70	L=38.18	L=26.70 R=44.93	L=15.06 R=14.32
Cut		0.52	0.76	0.60
Fill	0.47	0.17	0.06	0.16



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GENERAL NOTES:

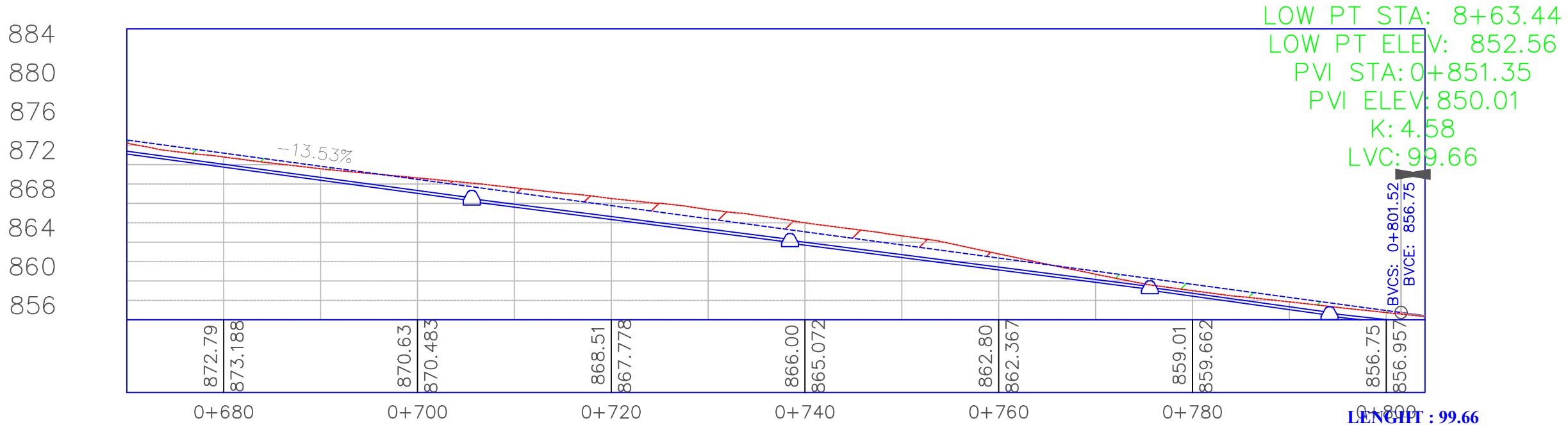
1. ALL STATIONS, COORDINATES AND LEVELS ARE IN METERS.
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3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs

- Warning sign: Road works
 - Warning sign: Narrow road
 - Circular sign: 30 speed limit
 - Circular sign: 40 speed limit
 - Circular sign: No entry
 - Circular sign: No U-turn
 - Circular sign: No trucks
- Ground Surface
— Design surface
— Design vertical curve



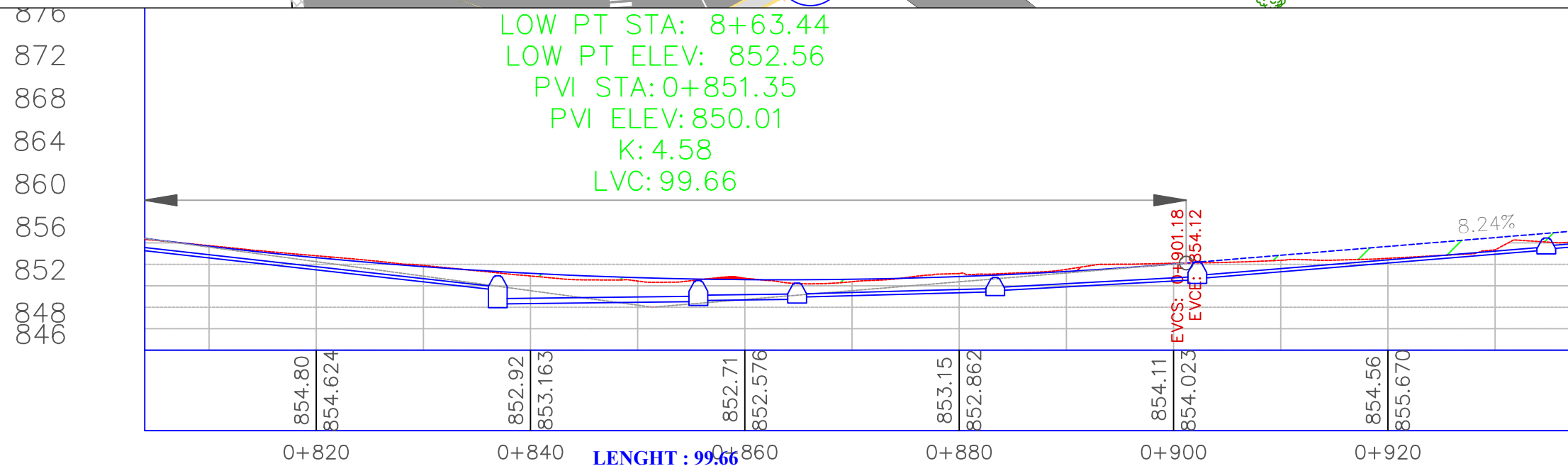
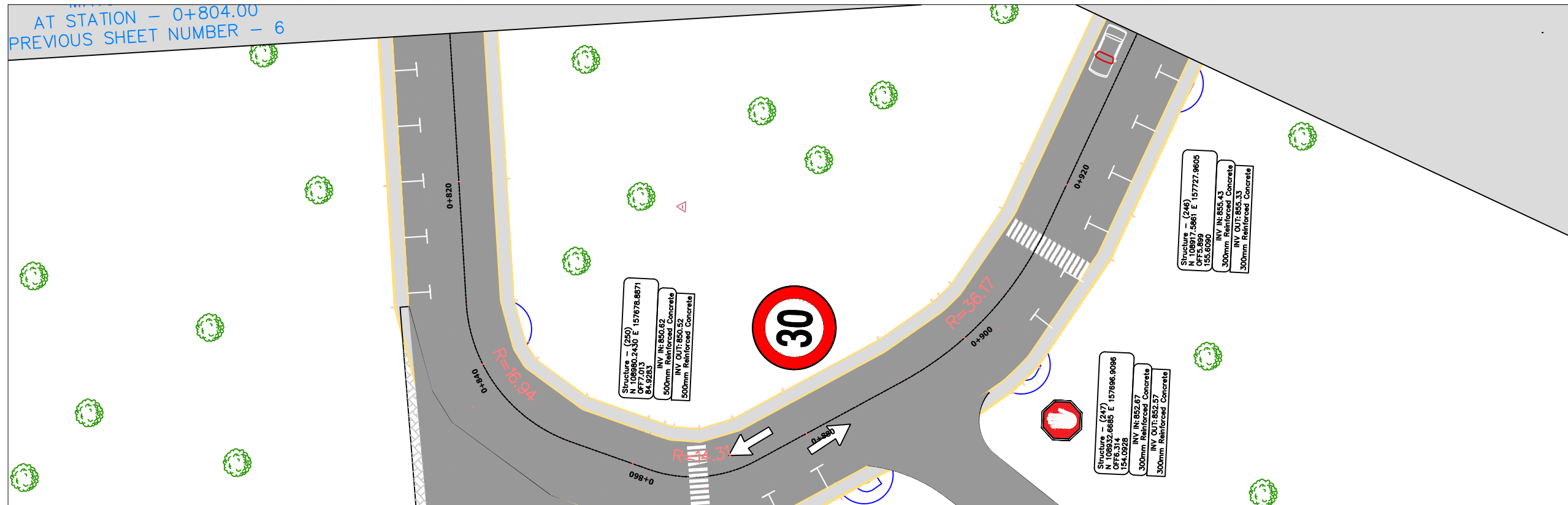
Vertical Geometry	L=15.06 R=14.32		L=20.15 R=70.12		L=10.92 R=21.48		LENGTH : 99.66 PVI STATION : 0+851.35 PVI ELEVATION : 850.01 L.P STATION : 0+863.44 L.P ELEVATION : 852.56 K: 4.578
Horizontal Geometry	L=51.74		L=28.07		L=46.59		
Cut	0.15		0.73		0.93		0.43
Fill	0.40				0.66		0.21

DRAWING TITLE :
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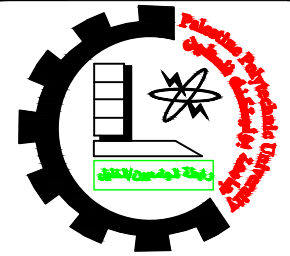
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RASHA DARWISH SHWIKI

SCALE	NO.OF	DATE
V : 1/500 H : 1/500	A3	21/01/2024
		6

AT STATION - 0+804.00
PREVIOUS SHEET NUMBER - 6



Vertical Geometry	PVI STATION : 0+851.35 PVI ELEVAYION : 850.01 L.P STATION : 0+863.44 L.P ELEVATION: 852.56 K: 4.578	
Horizontal Geometry	L=46.59 Curve 1: Radius=16.944, Length=19.821, Delta=112.9783	L=8.91 Curve 1: Radius=14.308, Length=11.965, Delta=132.0884
Cut	0.18	0.13
Fill	0.25	1.11



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THE ROAD BETWEEN
HALHUL & AIN HASKA

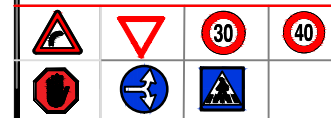
GENERAL NOTES:

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3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

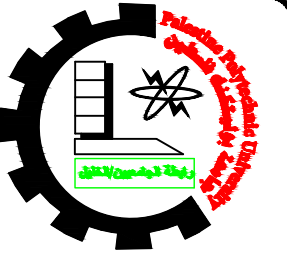
THE ROAD BETWEEN
HALHUL & AIN HASKA

Supervisor : Eng . faydi shabaneh

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SCALE	NO.OF	DATE
V : 1/500 H : 1/500	A3	21/01/2024



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College of Engineering and Technology

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Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs

- -
 -
 -
 -
 -
 -
- Ground Surface
 — Design surface
 — Design vertical curve

DRAWING TITLE :

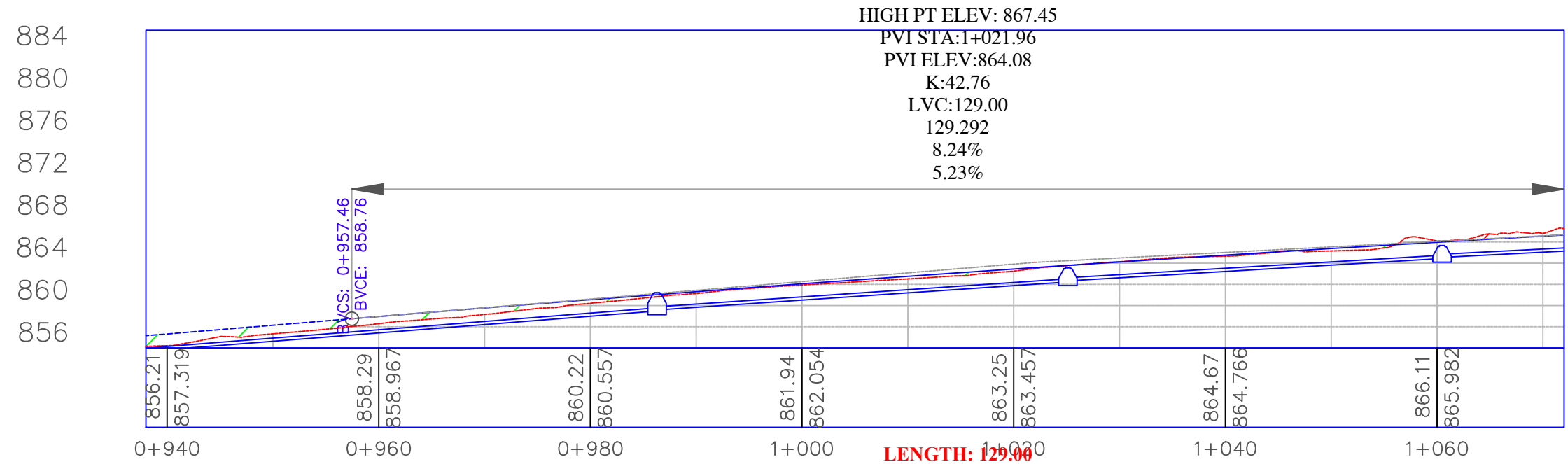
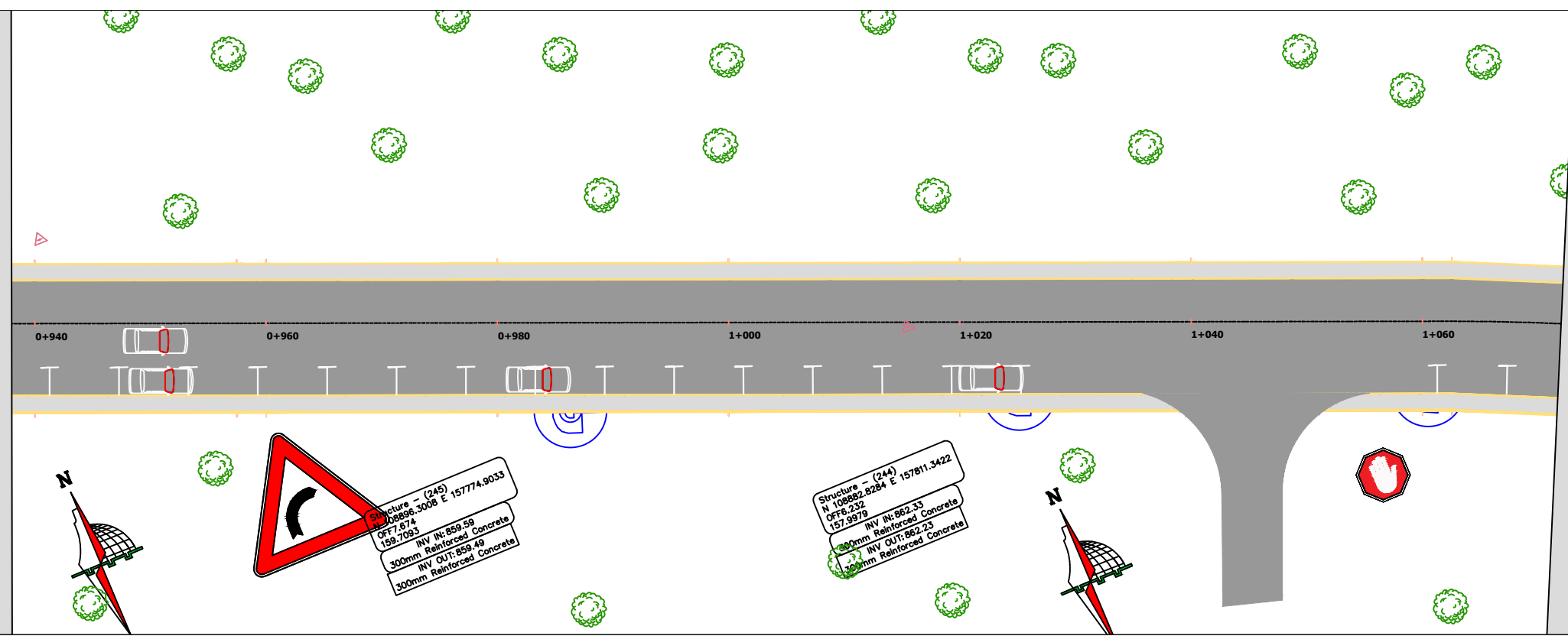
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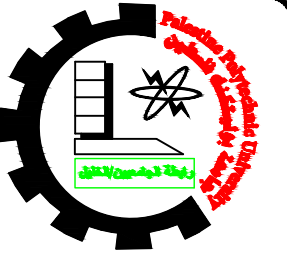
Desined by :

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SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 8



Vertical Geometry	56.28		PVI STATION: 1+021.96 PVI ELEVATION: 864.08 H.P STATION: 1+086.45 H.P ELEVATION: 867.45 K: 42.760										
Horizontal Geometry	L=147.81												
Cut	-0.13												
Fill	1.11	0.68	0.34	0.11	0.20	0.10							



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Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs

-
-
-
-
- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

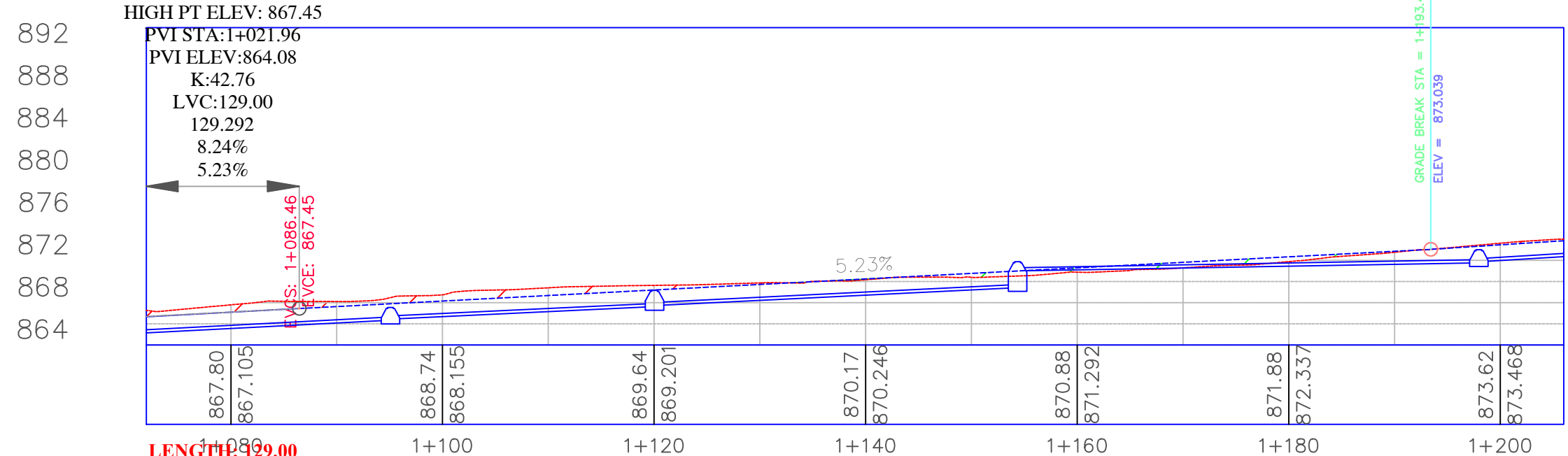
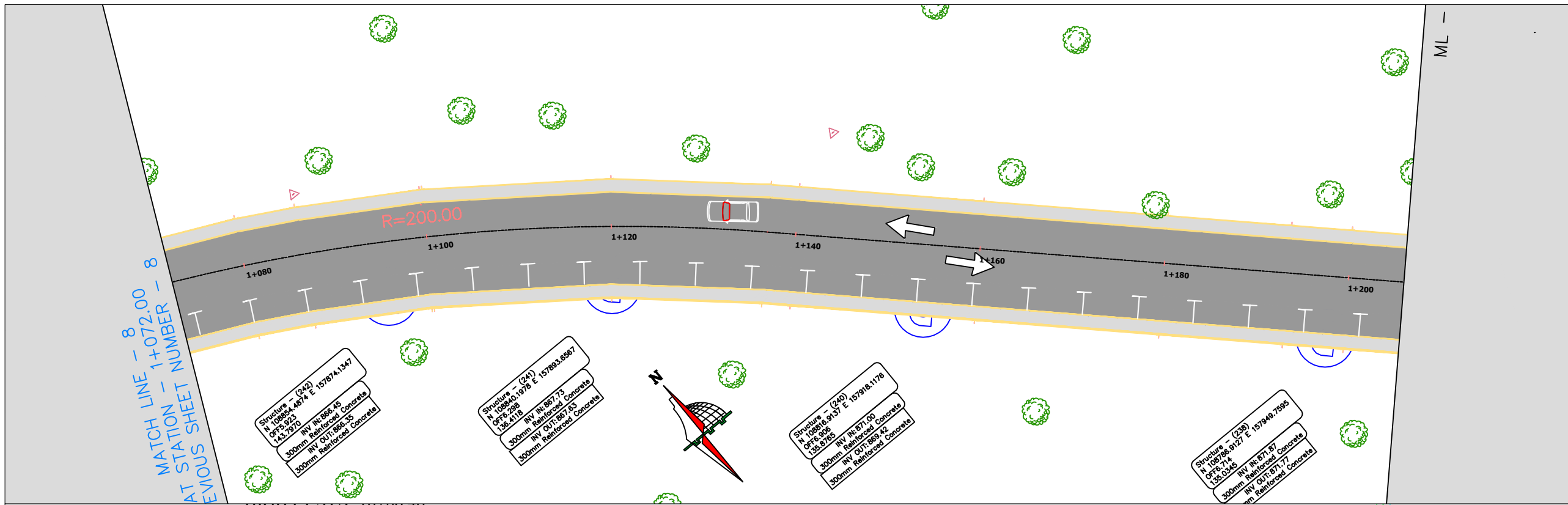
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Supervisor : Eng . faydi shabaneh

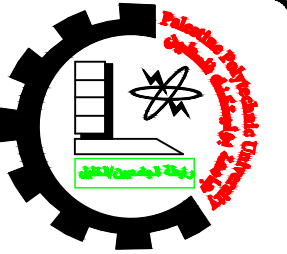
Desined by :

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SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 9



Vertical Geometry	<p>Vertical Curve Length: 129.00</p> <p>PVI STATION: 1+021.96 PVI ELEVATION: 864.08 H.P. STATION: 1+086.46 H.P. ELEVATION: 867.45</p> <p>K: 42.760</p>
Horizontal Geometry	<p>Curve 1: Radius=200.000, Length=74.384, Delta=158.6905</p> <p>L=74.38 R=200.00</p> <p>L=83.62</p>
Cut	0.69, 0.59, 0.44, 0.08, 0.41, 0.45, 0.15
Fill	0.08, 0.41, 0.45



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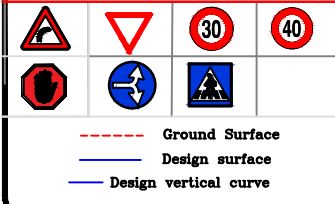
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3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

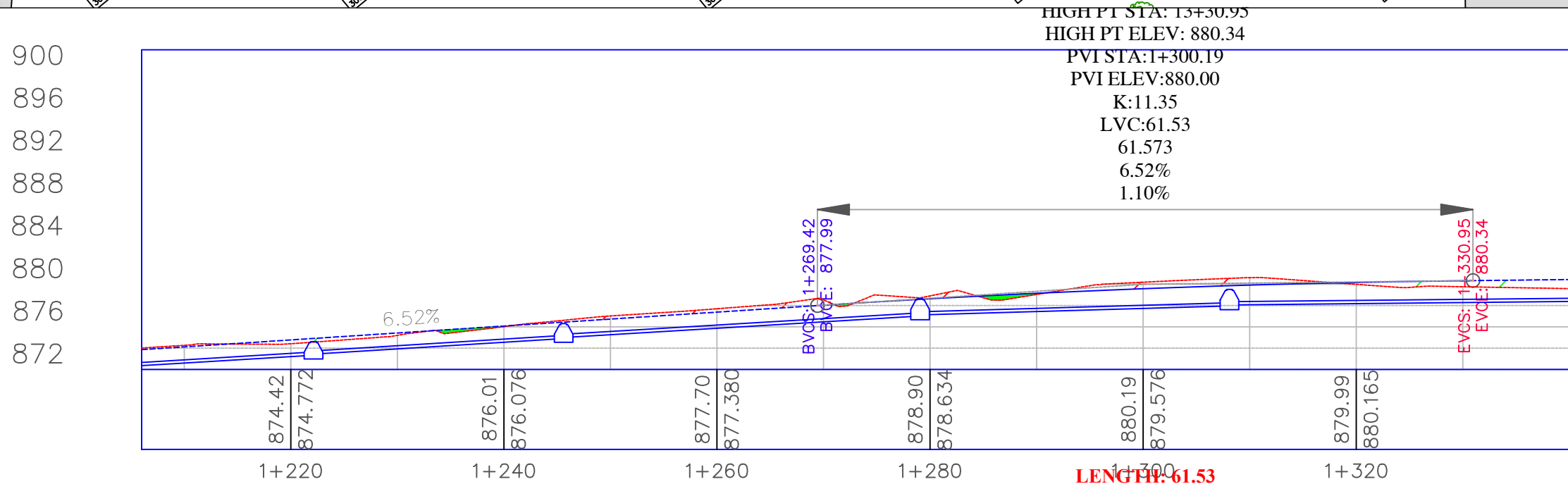
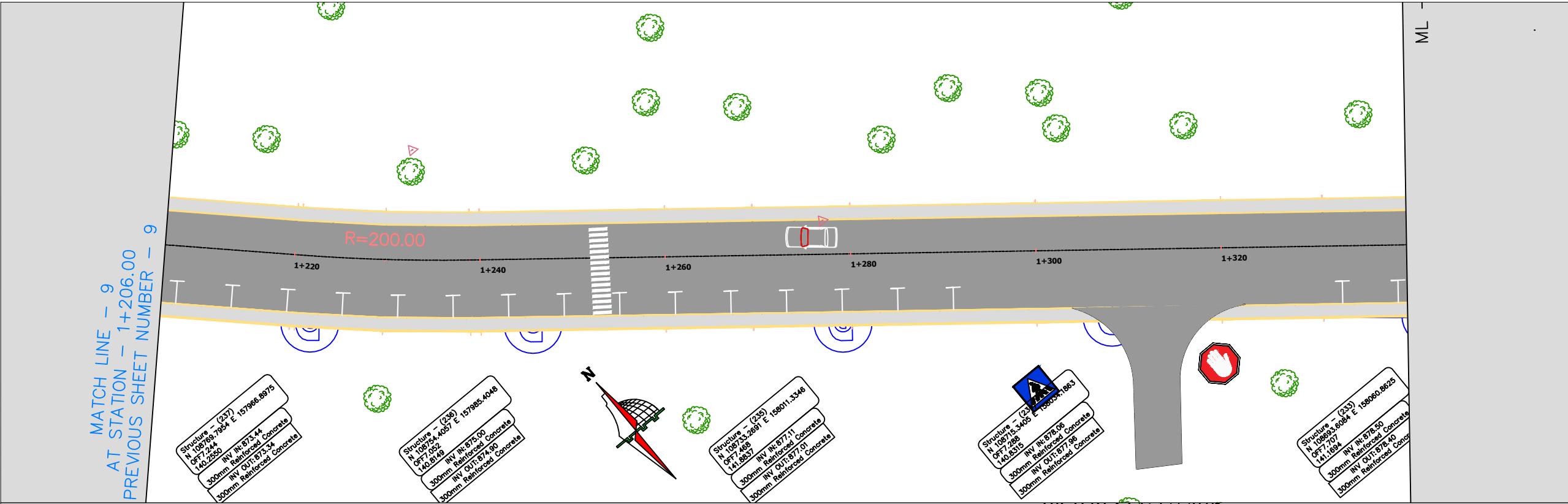
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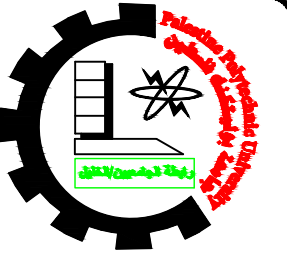
SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 10



Vertical Geometry	76.00		52.06	
Horizontal Geometry	L=83.62	L=18.34 R=200.00	L=112.00	
Cut		-0.32	-0.27	-0.61
Fill	0.35	0.06		0.18

HIGH PT STA: 1+300.95
HIGH PT ELEV: 880.34
PVI STA: 1+300.19
PVI ELEV: 880.00
K: 11.35
LVC: 61.53
61.573
6.52%
1.10%

LENGTH: 61.53
PVI STATION: 1+300.19
PVI ELEVATION: 880.00
H.P STATION: 1+330.95
H.P ELEVATION: 880.34
K: 11.352



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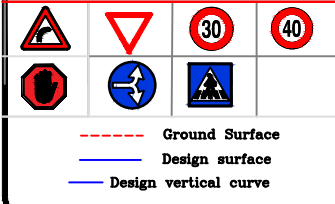
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Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

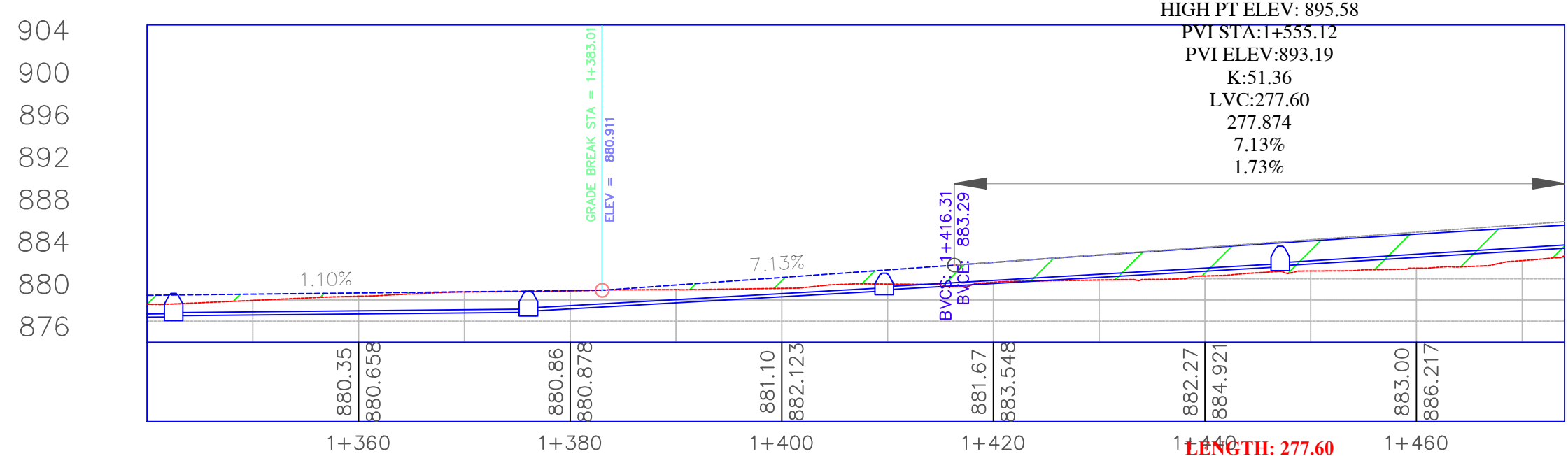
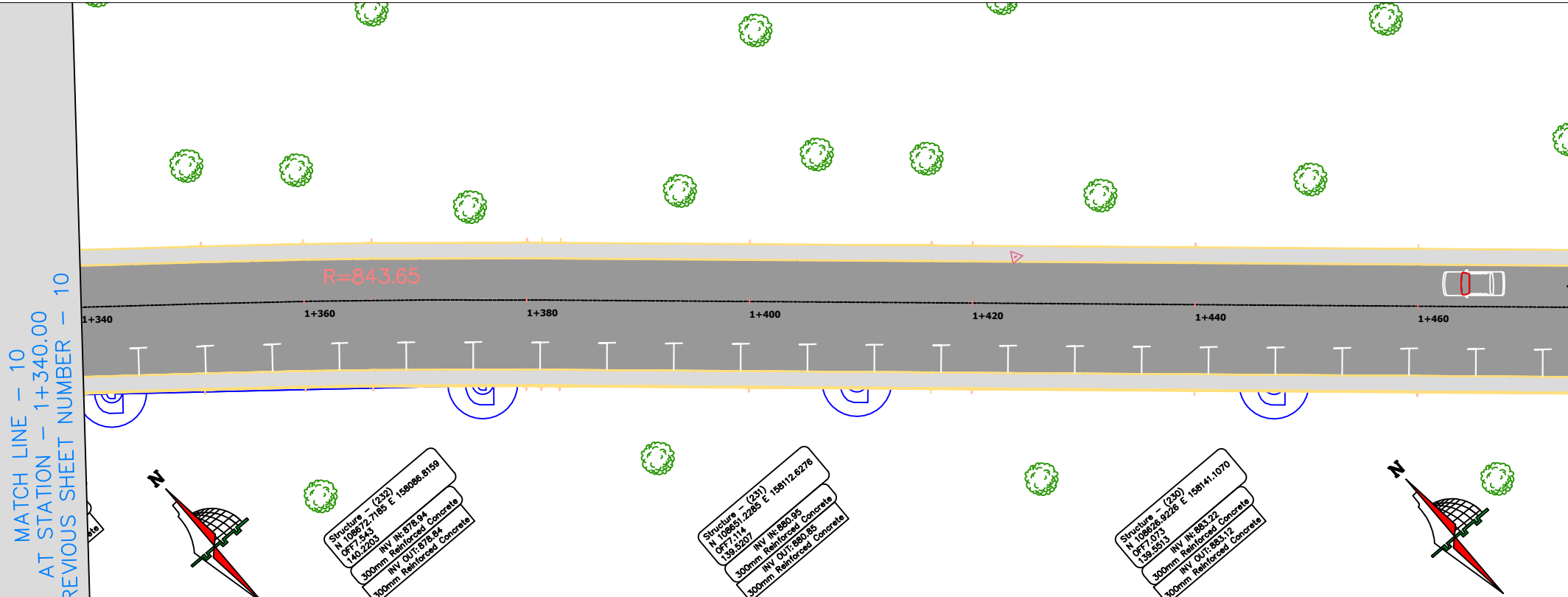
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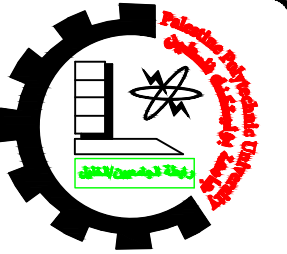
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SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 11



Vertical Geometry	52.06	33.30	PVI STATION: 1+555.12 PVI ELEVATION: 893.19 H.P STATION: 1+693.92 H.P ELEVATION: 895.58 K: 51.360		
Horizontal Geometry	L=112.00	L=30.47 R=843.65	L=130.51		
Cut					
Fill	0.31	0.02	1.03	1.88	2.65



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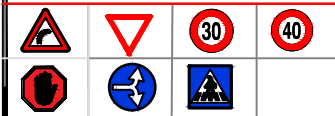
GENERAL NOTES:

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2. COORDINATES AND ELEVATIONS REFER TO THE PALESTINIAN GRID SYSTEM.
3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

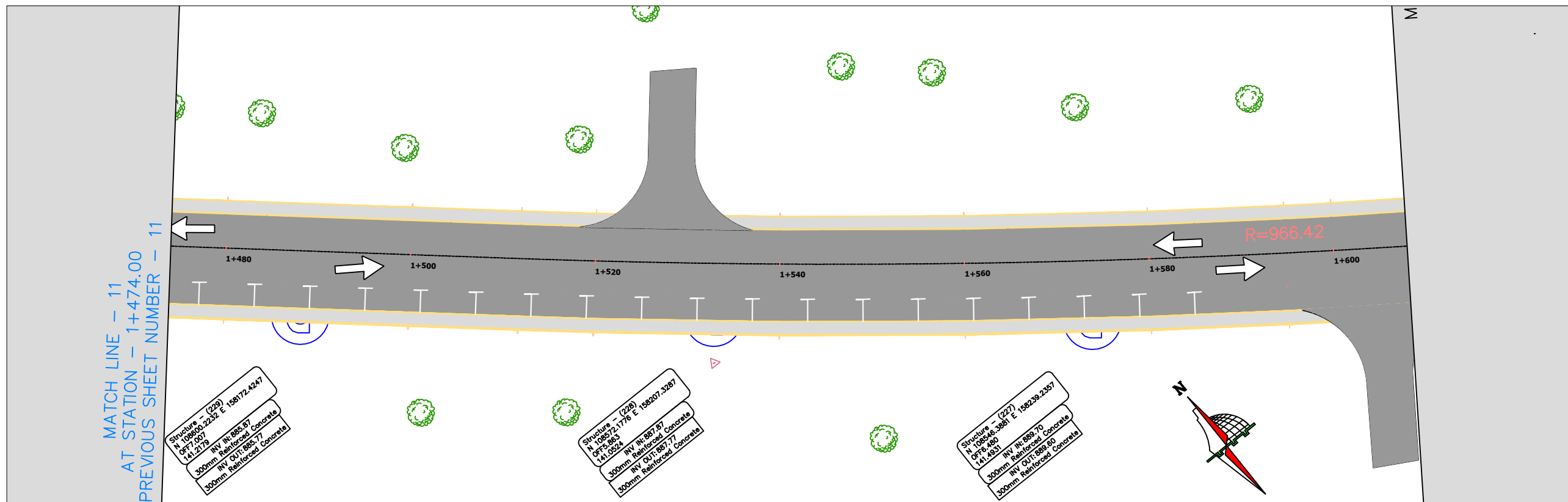
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SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 12

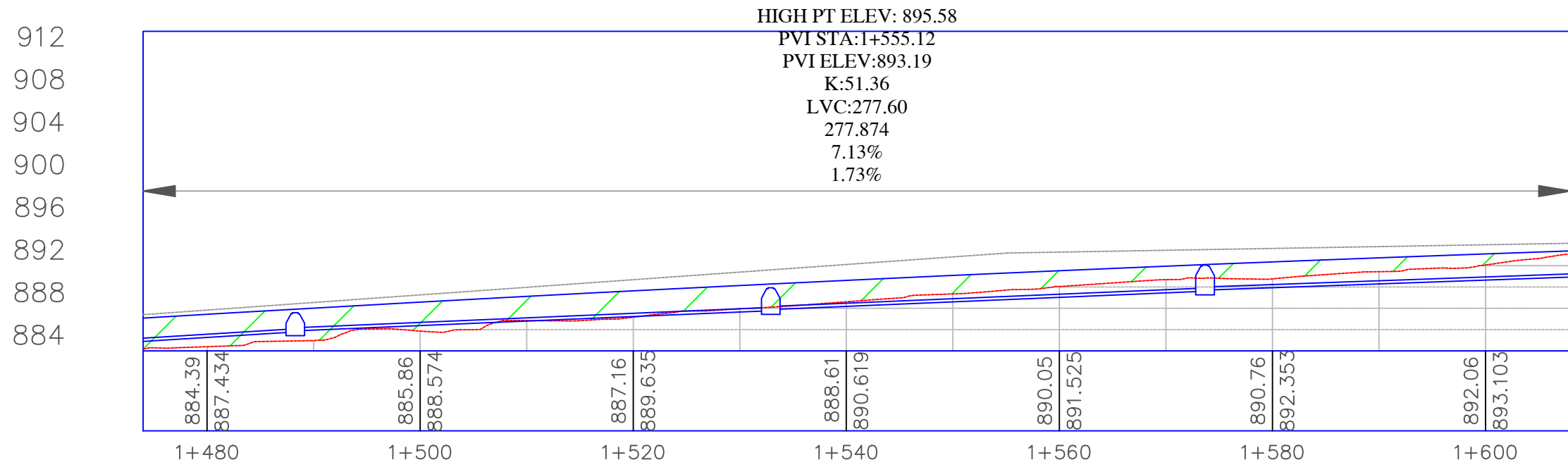
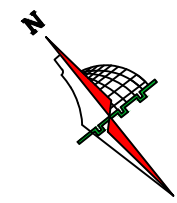


MATCH LINE - 11
AT STATION - 1+474.00
PREVIOUS SHEET NUMBER - 11

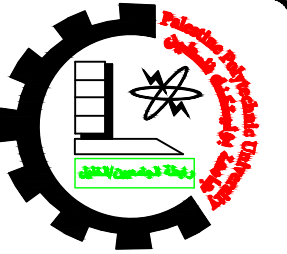
Structure (229)
N: 108690.2232 E: 158172.4247
OFF: 1.007
L: 1.279
INV: 885.87
300mm Reinforced Concrete
300mm Reinforced Concrete

Structure (228)
N: 108572.1776 E: 158207.3287
OFF: 0.865
L: 1.024
INV: 887.17
300mm Reinforced Concrete
300mm Reinforced Concrete

Structure (227)
N: 108546.5881 E: 158238.2387
OFF: 0.480
L: 1.493
INV: 889.70
300mm Reinforced Concrete
300mm Reinforced Concrete



Vertical Geometry							
Horizontal Geometry							
Cut							
Fill	3.04	2.71	2.47	2.01	1.47	1.59	1.04



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2. COORDINATES AND ELEVATIONS REFER TO THE PALESTINIAN GRID SYSTEM.
3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Manhole
- vehicle

Signs

- -
 -
 -
 -
 -
 -
- Ground Surface
 --- Design surface
 --- Design vertical curve

DRAWING TITLE :

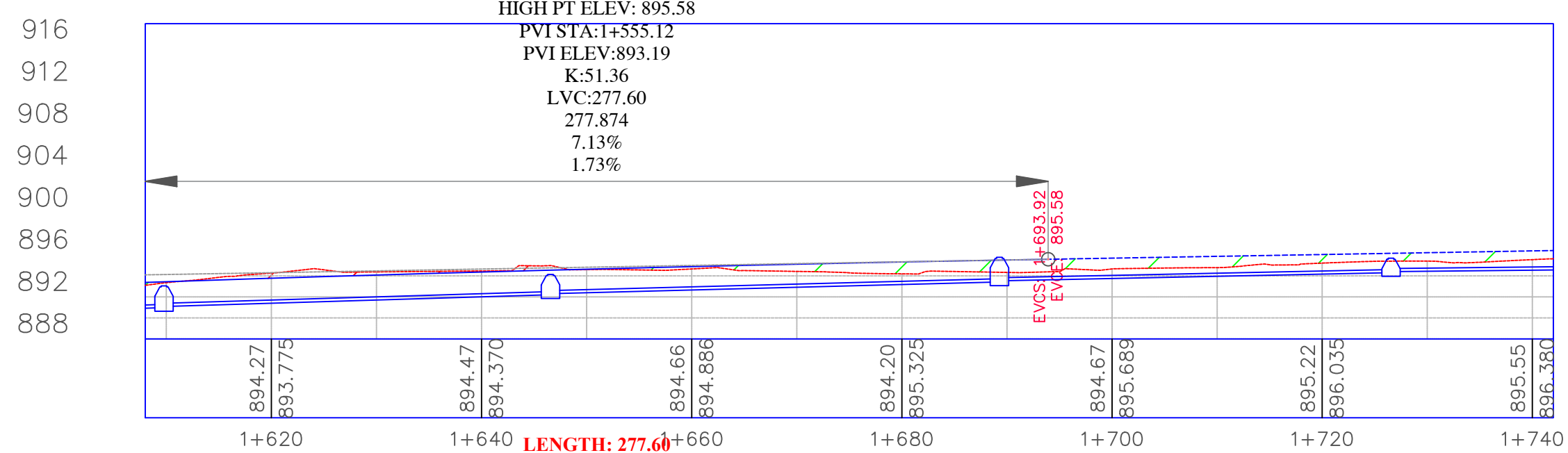
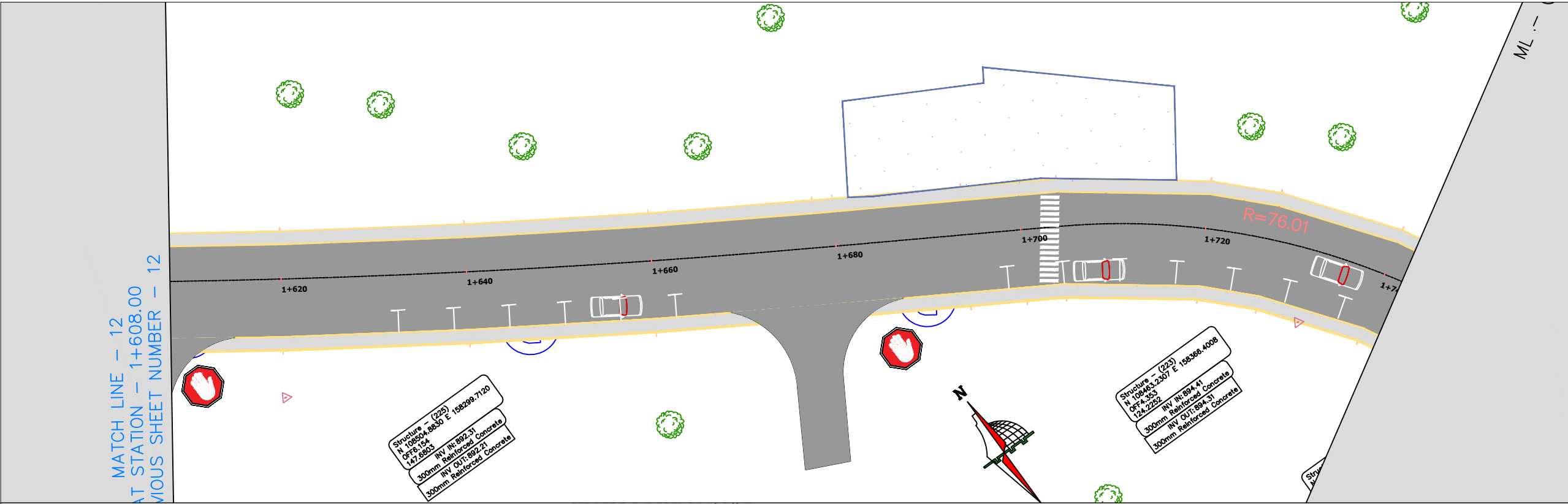
THE ROAD BETWEEN HALHUL & AIN HASKA

Supervisor : Eng . faydi shabaneh

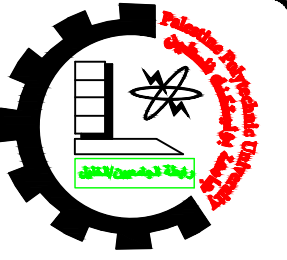
Desined by :

ATHEER AL-AJARMEH
 BARAA EHAB YOUNIS
 RASHA DARWISH SHWIKI

SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 13



Vertical Geometry	PVI STATION: 1+555.12 PVI ELEVATION: 893.19 H.P STATION: 1+693.92 H.P ELEVATION: 895.58	
Horizontal Geometry	L=165.33 R=966.42	K: 51.360 L=26.45 Curve 1: Radius=76.006, Length=45.869, Delta=145.4228
Cut	0.49	0.10
Fill	0.22	0.83



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GENERAL NOTES:

1. ALL STATIONS, COORDINATES AND LEVELS ARE IN METERS.
2. COORDINATES AND ELEVATIONS REFER TO THE PALESTINIAN GRID SYSTEM.
3. DESIGN SPEED 40Km/h

Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

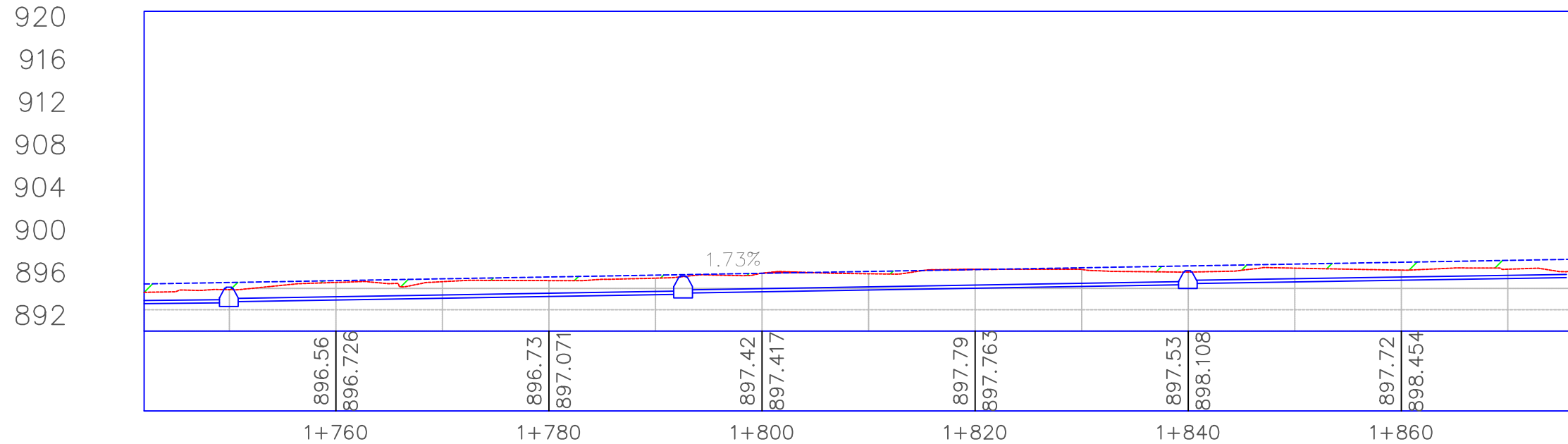
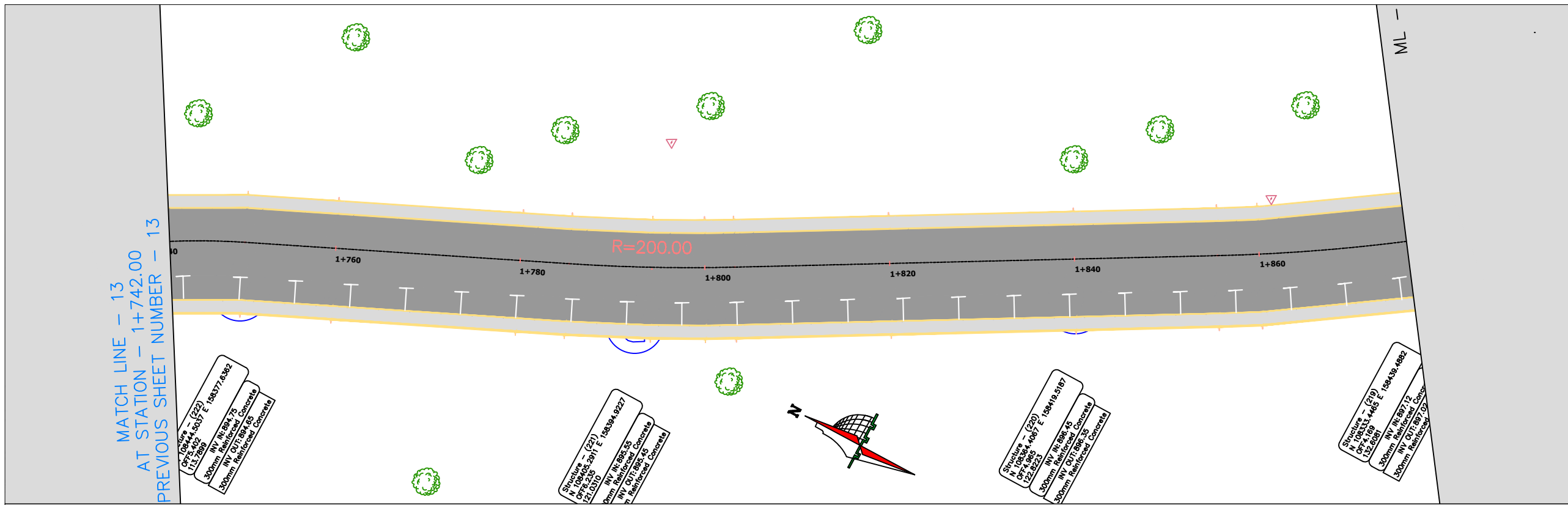
THE ROAD BETWEEN HALHUL & AIN HASKA

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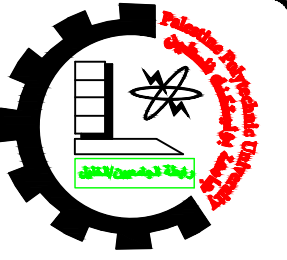
Desined by :

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RASHA DARWISH SHWIKI

SCALE	NO.OF	DATE
V : 1/500 H : 1/500	A3	21/01/2024



Vertical Geometry	L=45.87 R=76.01		L=17.93 R=200.00		L=92.29 R=200.00	
Horizontal Geometry	L=35.16		Curve 1: Radius=200.000, Length=17.926, Delta=174.8646		L=52.26	
Cut			0.01		0.02	
Fill	0.17		0.34		0.58	
					0.74	



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Legend

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- Water Wall
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- vehicle

Signs



- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

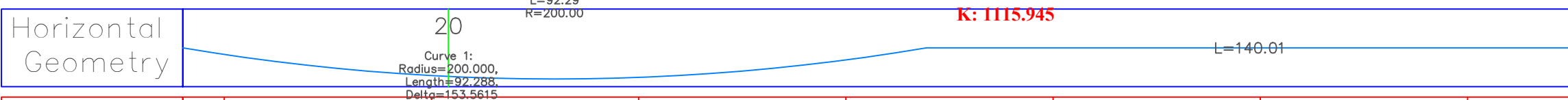
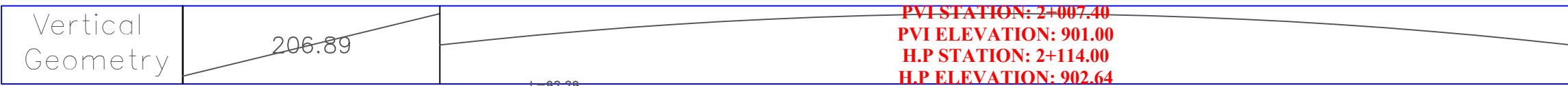
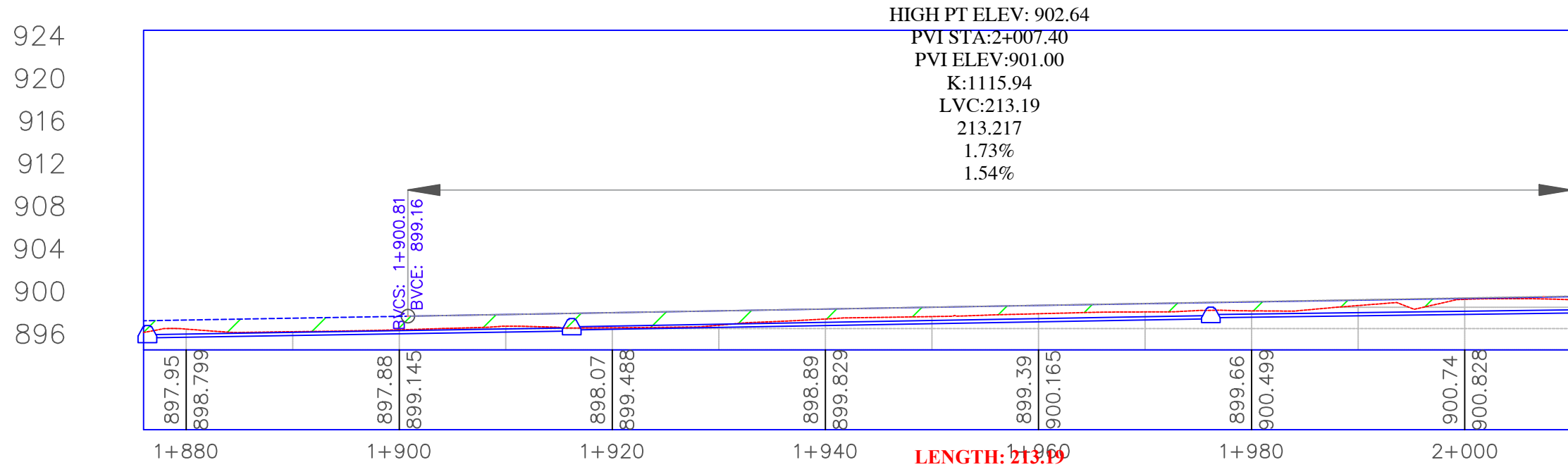
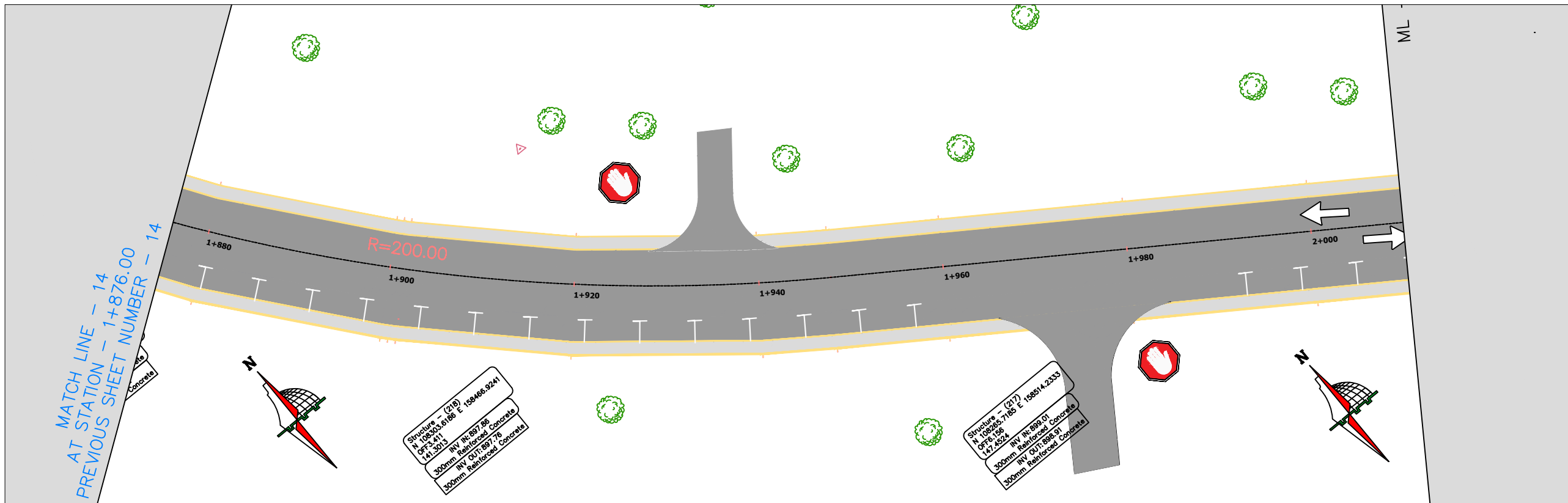
THE ROAD BETWEEN HALHUL & AIN HASKA

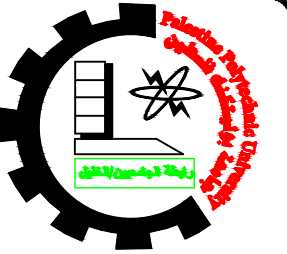
Supervisor : Eng . faydi shabaneh

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SCALE	NO.OF	DATE
V : 1/500 H : 1/500	DRAW A3	21/01/2024 15





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Department of Civil Engineering

THE ROAD BETWEEN HALHUL & AIN HASKA

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Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

Signs

-
-
-
-
- Ground Surface
- Design surface
- Design vertical curve

DRAWING TITLE :

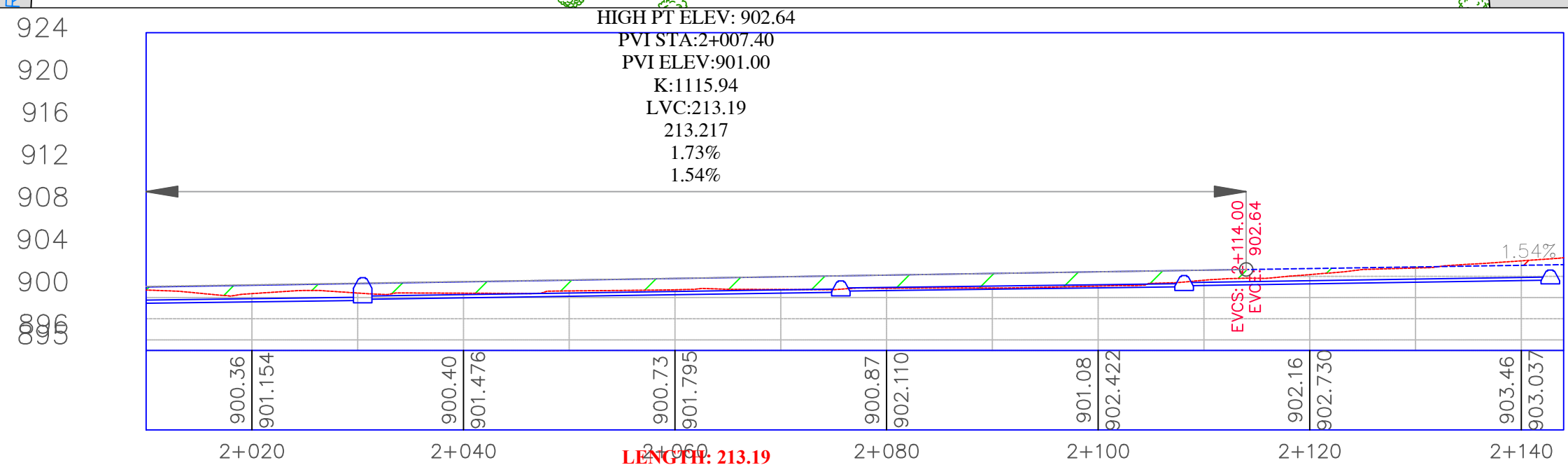
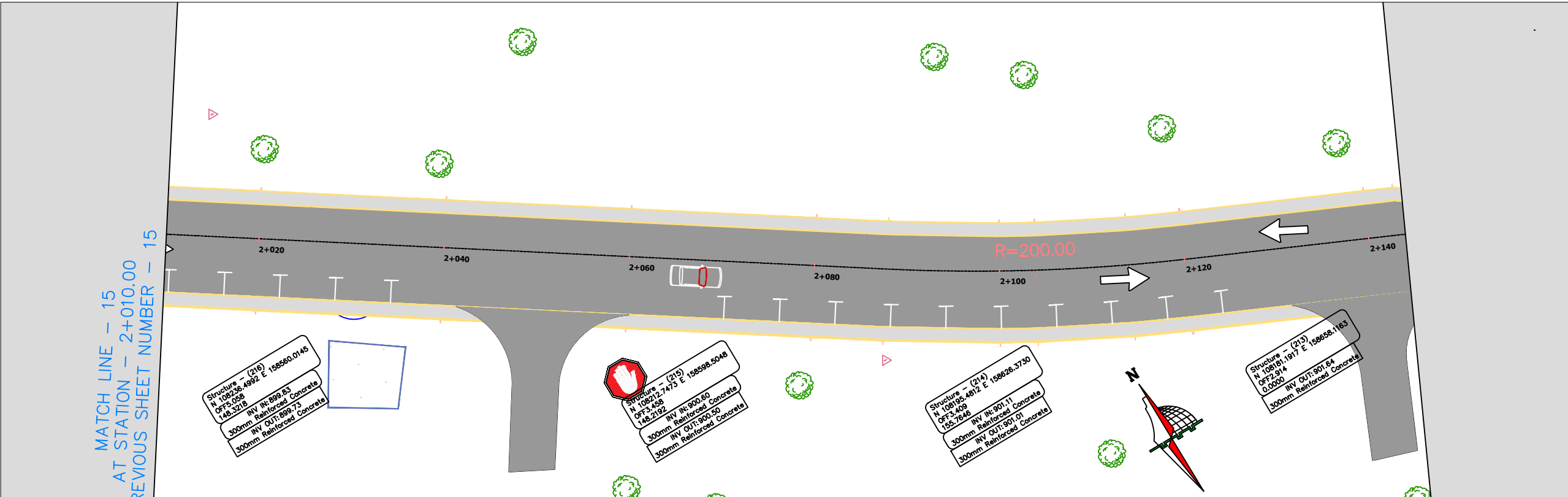
THE ROAD BETWEEN HALHUL & AIN HASKA

Supervisor : Eng . faydi shabaneh

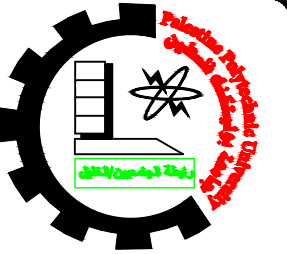
Desined by :

ATHEER AL-AJARMEH
BARAA EHAB YOUNIS
RASHA DARWISH SHWIKI

SCALE	NO.OF	DATE
V : 1/500 H : 1/600	A3	21/01/2024



Vertical Geometry	<p>LENGTH: 213.19 PVI STATION: 2+007.40 PVI ELEVATION: 901.00 H.P STATION: 2+114.00 H.P ELEVATION: 902.64 K: 1115.945</p>					
Horizontal Geometry	<p>L=140.01 L=32.30 R=200.00 Curve 1: Radius=200.000, Length=32.299, Delta=170.7471 L=23.09 L=34.52 R=50.41</p>					
Cut						0.42
Fill	0.79	1.07	1.07	1.24	1.34	0.57



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Legend

- Asphalt
- Building
- Water Wall
- Barracks
- Monhel
- vehicle

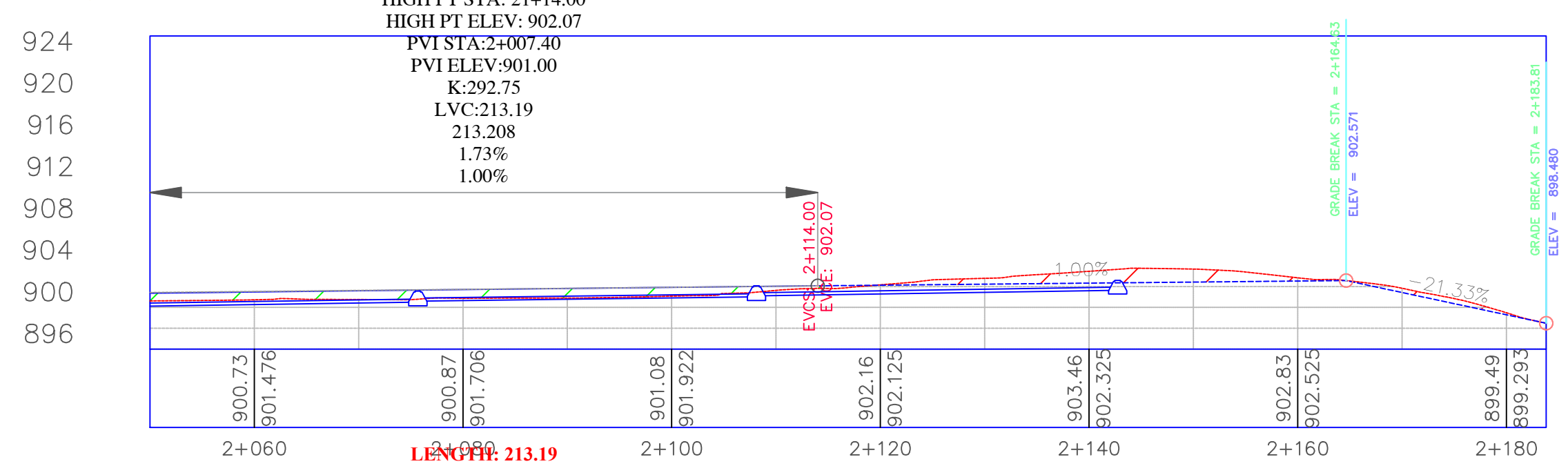
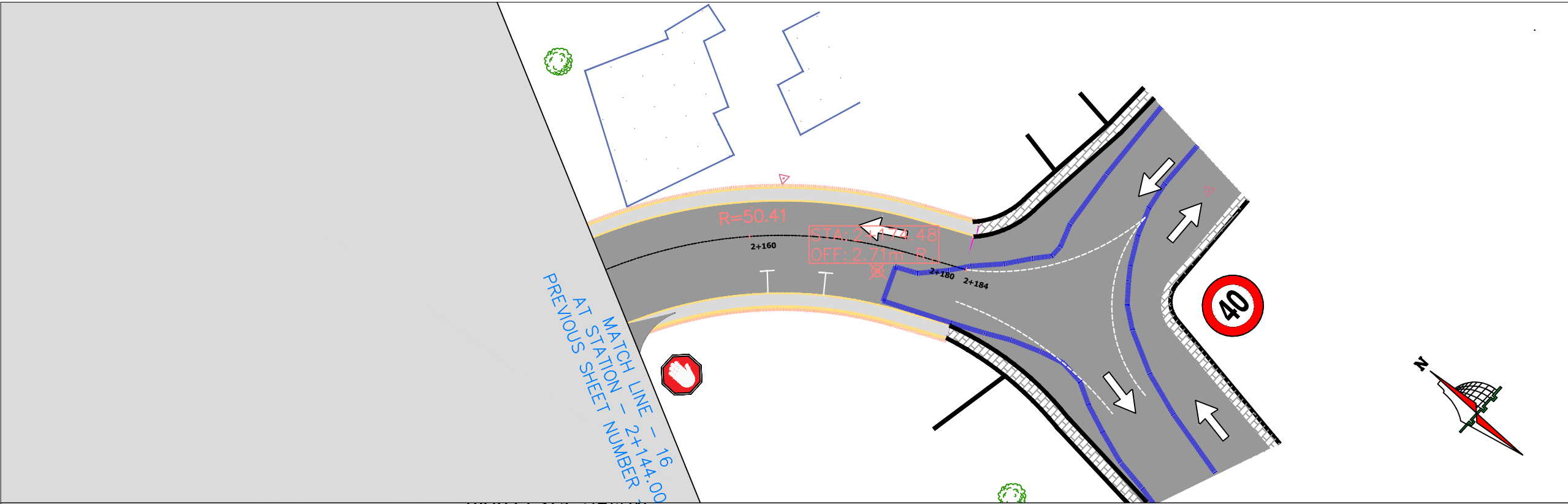
Signs

-
-
-
-
- Ground Surface
- Design surface
- Design vertical curve

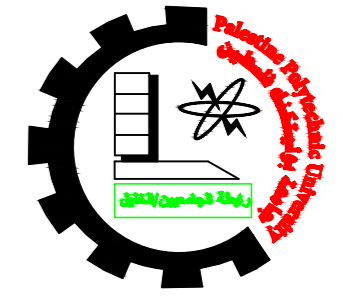
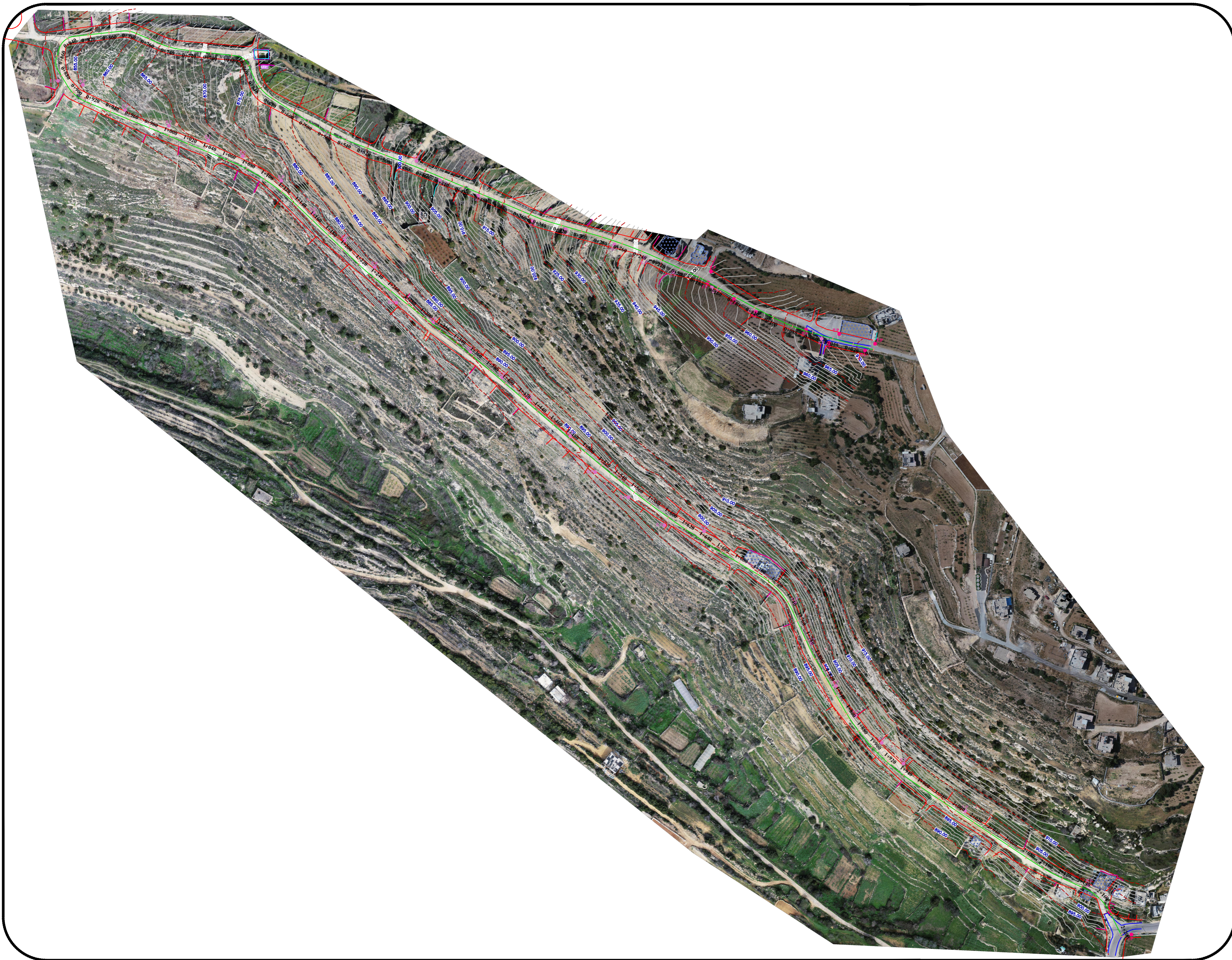
DRAWING TITLE :
 THE ROAD BETWEEN HALHUL & AIN HASKA
 Supervisor : Eng . faydi shabaneh

Desined by :
 ATHEREE AL-AJARMEH
 BARAA EHAB YOUNIS
 RASHA DARWISH SHWIKI

SCALE	NO.OF	DATE
V : 1/500 H : 1/500	A3	21/01/2024



Vertical Geometry	LENGTH: 213.19		PVI STATION: 2+007.40		PVI ELEVATION: 901.00		H.P STATION: 2+114.00		H.P ELEVATION: 902.07	
Horizontal Geometry	K: 292.748		L=140.01		L=23.09		L=34.52		L=6.13	
Cut										
Fill	0.75	0.83	0.84							



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Legend

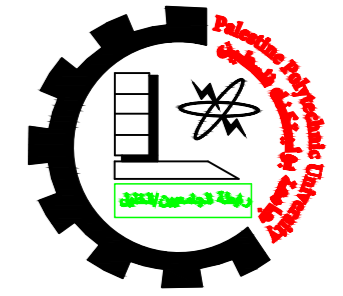
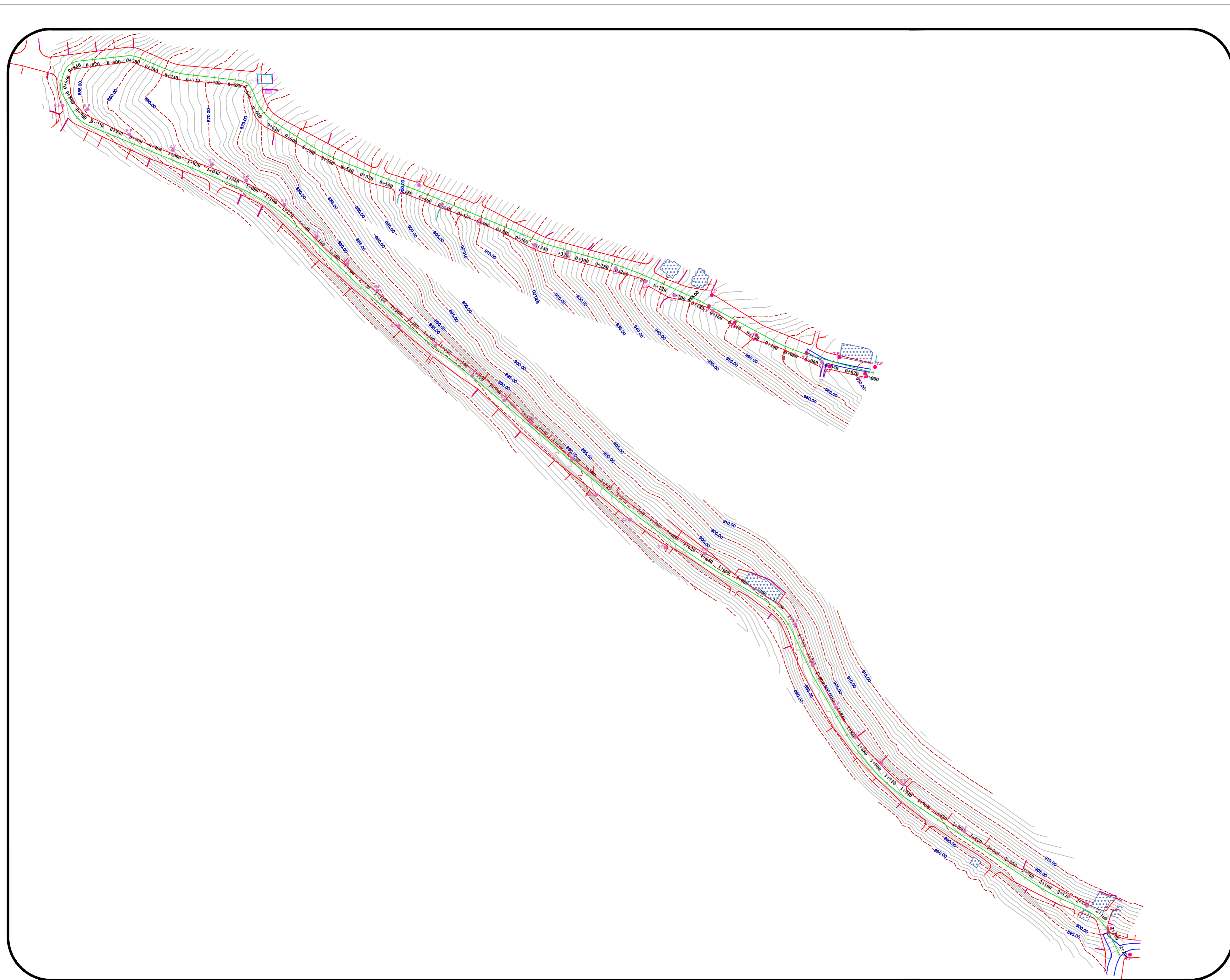
- BOUNDARY of ORIGINAL
- ROADS ASPHALT
- LOOSE STONES WALL
- WALLS CONCRETE
- MINOR CONTOR
- - - MAJOR CONTOR
- BUILDINGS
- BARRACKS
- WATER WALL
- E.P. POLES for ELECTRICITY
- T.P. POLES for TELEPHONE

DRAWING TITLE :
THE ROAD BETWEEN
HALHUL & AIN HASKA

Supervisor : *Eng. Faydi Shabaneh*

Desined by :
ATHEER AL-AJARMEH
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RASHA DARWISH SHWIKI

SCALE	NO.OF DRAW	DATE
1/2500	2/A2	21/1/2024



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Department of Civil Engineering

THE ROAD BETWEEN
HALHUL & AIN HASKA

Legend

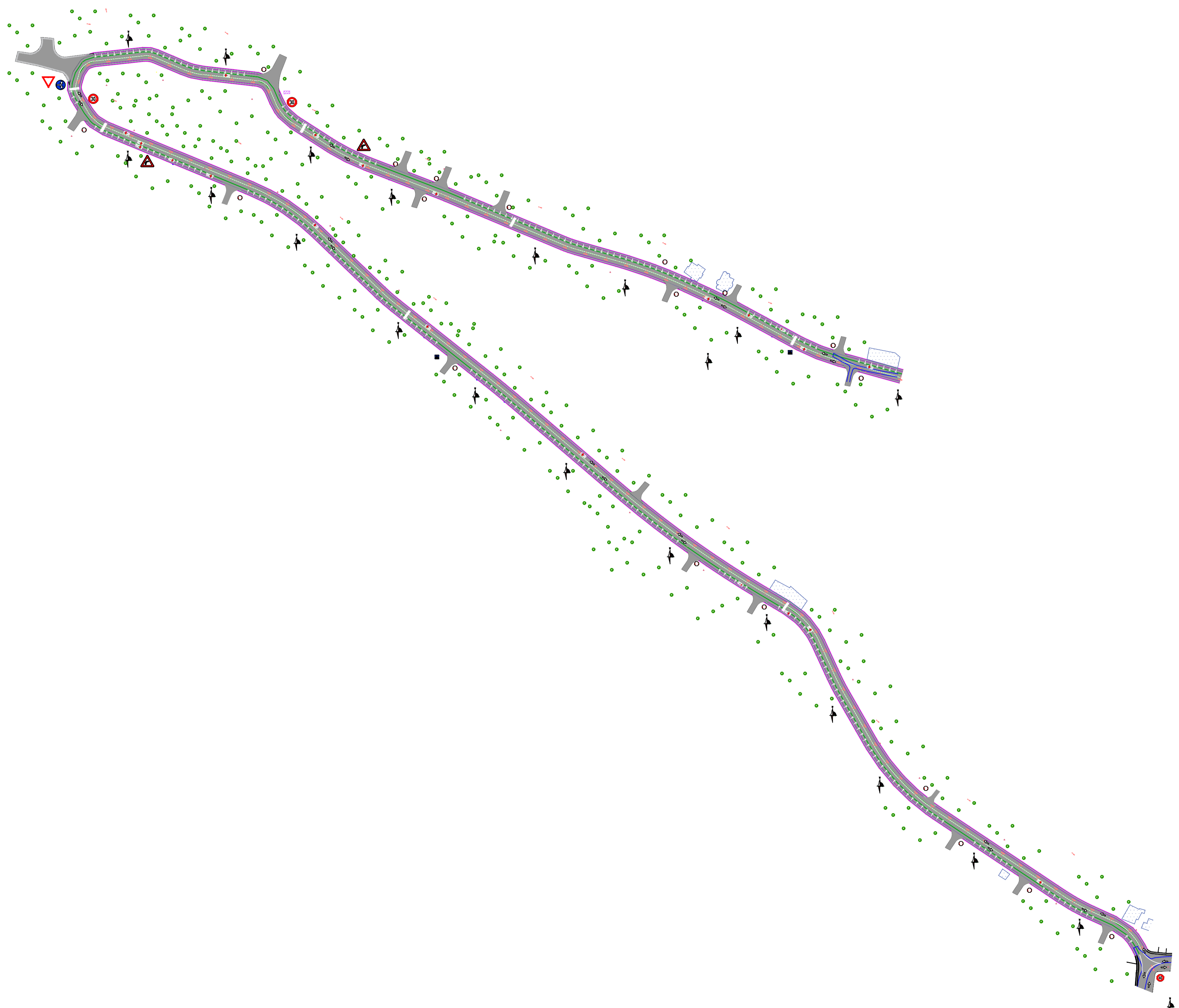
- BOUNDARY of ORIGINAL
- ROADS ASPHALT
- LOOSE STONES WALL
- WALLS CONCRETE
- MINOR CONTOR
- - - MAJOR CONTOR
- ▤ BUILDINGS
- ▨ BARRACKS
- ▭ WATER WALL
- E.P POLES for ELECTRICITY
- T.P POLES for TELEPHONE

DRAWING TITLE :
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SCALE	NO.OF DRAW	DATE
1/2500	1/A2	21/1/2024



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THE ROAD BETWEEN
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Legend

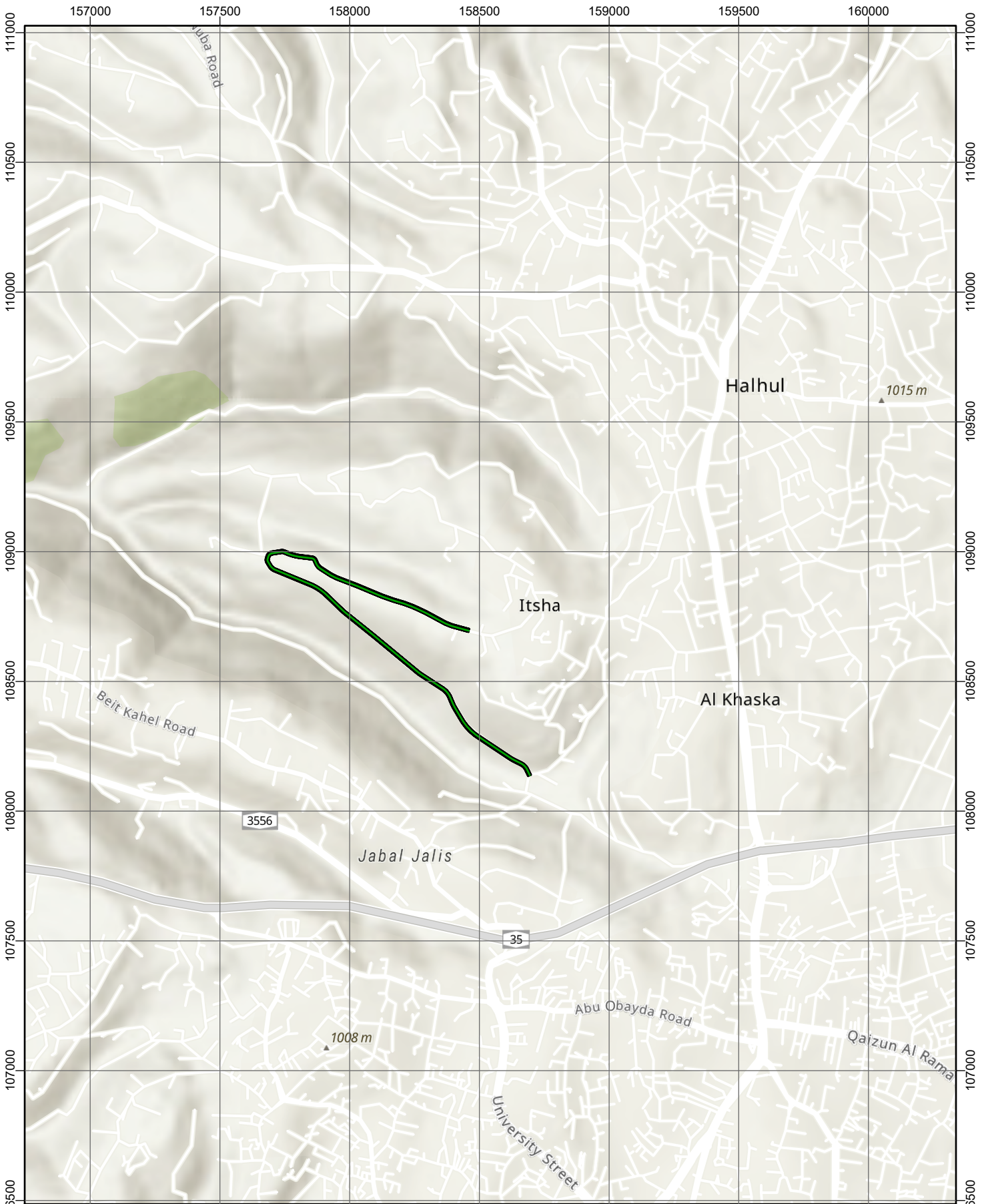
	Asphalt
	Building
	Water Wall
	Barracks
	Monhel
	vehicle

Signs

DRAWING TITLE :
 THE ROAD BETWEEN
 HALHUL & AIN HASKA
 Supervisor : Eng . faydi shabaneh

Desined by :
 ATHEER AL-AJARMEH
 BARAA EHAB YOUNIS
 RASHA DARWISH SHWIKI

SCALE	NO.OP	DATE
1/2000	A1	21/01/2024

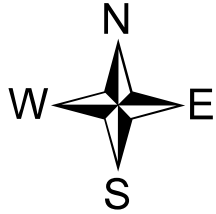


Topography MAP

DESIGNED BY :BRAA YOUNIS & ATHEER AL-AJARMEH & RASHA AHWEIKI

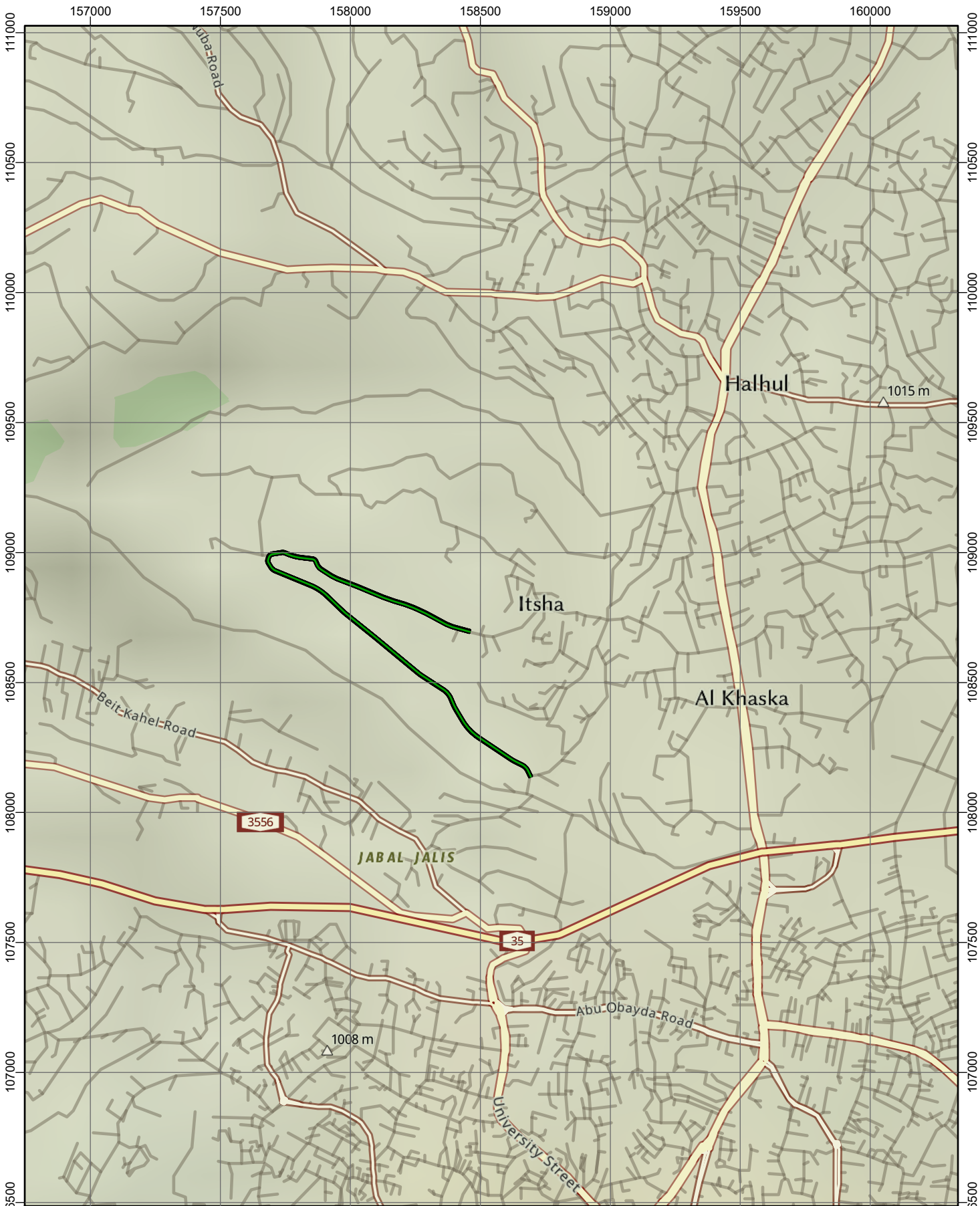
Spatial Reference
 Name: WGS 1984 Web Mercator Auxiliary Sphere
 PCS: WGS 1984 Web Mercator Auxiliary Sphere
 GCS: GCS WGS 1984
 Datum: WGS 1984
 Projection: Mercator Auxiliary Sphere

2024



Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS; Esri, NASA, NGA, USGS



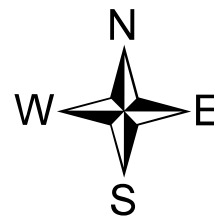


STREET POSITION

DESIGNED BY :BRAA YOUNIS & ATHEER AL-AJARMEH & RASHA AHWEIKI

Spatial Reference
 Name: WGS 1984 Web Mercator Auxiliary Sphere
 PCS: WGS 1984 Web Mercator Auxiliary Sphere
 GCS: GCS WGS 1984
 Datum: WGS 1984
 Projection: Mercator Auxiliary Sphere

2024



Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS; Esri, NASA, NGA, USGS; Sources:
 Esri, USGS